Administrative Package Cover Page

This file contains the following documents:

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

Plain Language Summary Template and Instructions for Beneficial Land Use of Biosolids Permit Applications

CITY OF DUBLIN WWTP (CN600625925) operates CITY OF DUBLIN WWTP RN101918308. a WASTEWATER PLANT FACILITY. The facility is located APPROXIMATELY 0.75 MI SW OF THE INTERSECTION FM 219 AND FM 1702 , in DUBLIN, ERATH County, Texas 76446.

This application is for a renewal to discharge at an annual average flow of 450,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*.

Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0010405001

APPLICATION. City of Dublin, 213 East Blackjack Street, Dublin, Texas 76446, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010405001 (EPA I.D. No. TX0054348) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 450,000 gallons per day with provisions to land apply Class B biosolids for beneficial use on 202 acres of land. The domestic wastewater treatment facility is located approximately 0.75 mile southwest of the intersection of Farm-to-Market Road 219 and Farm-to-Market Road 1702, near the city of Dublin, in Erath County, Texas 76446. The discharge route is from the plant site to Resley Creek; thence to Leon River Below Proctor Lake. TCEQ received this application on October 29, 2024. The permit application will be available for viewing and copying at Dublin City Hall, table in lobby, 213 East Blackjack Street, Dublin, 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/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.340277,32.061944&level=18

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

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

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a

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

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

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

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

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

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

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

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at **https://www14.tceq.texas.gov/epic/eComment/**, or in

writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Dublin at the address stated above or by calling Mr. Cory James, Public Works Director, at 254-554-3331.

Issuance Date: January 10, 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Dublin

PERMIT NUMBER (If new, leave blank): WQ00 10405001

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

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

For TCEQ Use Only

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 054877

Check/Money Order Amount: 1215.00

Name Printed on Check: City of Dublin Enterprise Fund

EPAY — Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

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

☐ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☒ Conventional Wastewater Treatment

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

☒ Active ☐ Inactive

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

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

d. Check the box next to the appropriate application type

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

e. For amendments or modifications, describe the proposed changes: Click to enter text.

f. For existing permits:

Permit Number: WQ00 10405001

EPA I.D. (TPDES only): TX 00534348

Expiration Date: 04/27/2025

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

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

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

City of Dublin

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

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

CN: 600625925

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

Prefix: Mr. Last Name, First Name: Leatherwood, David

Title: Mayor Credential: Click to enter text.

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

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

Click to enter text.

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

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

CN: Click to enter text.

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

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

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

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

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: James, Cory

Title: Public Works Director Credential: Click to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-554-3331 E-mail Address: cjames@ci.dublin.tx.us

Check one or both: ☒ Administrative Contact ☐ Technical Contact

B. Prefix: Mrs. Last Name, First Name: Fernandez, Sarah

Title: Environmental Coordinator Credential: Click to enter text.

Organization Name: Jacob Martin

Mailing Address: 3465 Curry Lane City, State, Zip Code: Abilene, TX 79606

Phone No.: 325-695-1070 E-mail Address: sfernandez@jacobmartin.com

Check one or both: ☒ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

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

A. Prefix: Mr. Last Name, First Name: James, Cory

Title: Public Works Director Credential: Click to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-554-3331 E-mail Address: cjames@ci.dublin.tx.us

B. Prefix: Mrs. Last Name, First Name: Fernandez, Sarah

Title: Environmental Coordinator Credential: Click to enter text.

Organization Name: Jacob Martin

Mailing Address: 3465 Curry Lane City, State, Zip Code: Abilene, TX 79606

Phone No.: 325-695-1070 E-mail Address: sfernandez@jacobmartin.com

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: James, Cory

Title: Public Works Director Credential: Click to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-554-3331 E-mail Address: cjames@ci.dublin.tx.us

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

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

Prefix: Mr. Last Name, First Name: James, Cory

Title: Public Works Director Credential: Click to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-554-3331 E-mail Address: cjames@ci.dublin.tx.us

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mrs. Last Name, First Name: Fernandez, Sarah

Title: Environmental Coordinator Credential: Click to enter text.

Organization Name: Jacob Martin

Mailing Address: 3465 Curry Lane City, State, Zip Code: Abilene, TX, 79606

Phone No.: 325-695-1070 E-mail Address: sfernandez@jacobmartin.com

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

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

☒ E-mail Address

☐ Fax

☒ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr. Last Name, First Name: James, Cory

Title: Public Works Director Credential: Click to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Abilene, TX, 79606

Phone No.: 254-554-3331 E-mail Address: cjames@ci.dublin.tx.us

D. Public Viewing Information

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

Public building name: City Hall

Location within the building: Table in Lobby

Physical Address of Building: 213 E Blackjack St,

City: Dublin County: Erath

Contact (Last Name, First Name): James, Cory

Phone No.: 254-445-3331 Ext.: Click to enter text.

E. Bilingual Notice Requirements

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

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

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

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

   ☐ Yes ☒ No

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

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

   ☐ Yes ☐ No

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

   ☐ Yes ☐ No

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

   ☐ Yes ☐ No

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

F. Plain Language Summary Template

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

Attachment: #1

G. Public Involvement Plan Form

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

Attachment: Click to enter text.

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** 101178044

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

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

City of Dublin WWTP

C. Owner of treatment facility: City of Dublin

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

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

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

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-445-3331 E-mail Address: Click to enter text.

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

Attachment: Click to enter text.

E. Owner of effluent disposal site:

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

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

Organization Name: Click to enter text.

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

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

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

Attachment: Click to enter text.

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

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

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

Organization Name: Bar B/Graham Partners LLC

Mailing Address: 1423 CR 257 City, State, Zip Code: Stephenville, TX, 76401

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

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

Attachment: Click to enter text.

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

Click to enter text.

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

☒ Yes ☐ No

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

Click to enter text.

City nearest the outfall(s): Dublin

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

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

☐ Yes ☒ No

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

☐ Authorization granted ☐ Authorization pending

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

Attachment: Click to enter text.

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☐ Yes ☐ No

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

Click to enter text.

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

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

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

Click to enter text.

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

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☒ Yes ☐ No ☐ Not Applicable

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

Click to enter text.

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

☒ Yes ☐ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application: David Hudson and Charles Keith, retired TCEQ 2006

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click to enter text.

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

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

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010405001

Applicant: City of Dublin

Certification:

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

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

Signatory name (typed or printed): David Leatherwood

Signatory title: Mayor

Signature: _____ Date: 10/04/24

(Use blue ink)

Subscribed and Sworn to before me by the said David Leatherwood

on this 04 day of October, 2024.

My commission expires on the 15 day of March, 2025

_____

Notary Public

Erath

County, Texas

HILDA LOPEZ NOTARY PUBLIC SEAL STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974236

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

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

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

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

C. Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☐ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: Click to enter text.

E. As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☐ No

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

Click to enter text.

Section 2. Original Photographs (Instructions Page 38)

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

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

Section 3. Buffer Zone Map (Instructions Page 38)

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

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

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

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

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

☐ Yes ☐ No

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: #2

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

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

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

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

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

Phone Number: Click to enter text. Fax Number: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

For Commission Use Only:
Customer Number:
Regulated Entity Number:
Permit Number:

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

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

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

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

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

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

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

Things to Know:

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

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

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

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

Plain Language Summary ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

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

A. Existing/Interim I Phase

Design Flow (MGD): 0.45

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

B. Interim II Phase

Design Flow (MGD): Click to enter text.

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

C. Final Phase

Design Flow (MGD): 0.45

2-Hr Peak Flow (MGD): Click to enter text.

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

D. Current Operating Phase

Provide the startup date of the facility: 05/03/1996

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

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

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

The existing wastewater treatment plant is a combination of an aerated lagoon and stabilization lagoons. Treatment equipment and systems include: influent coarse screening, raw sewage pumping equipment, a single aerated basin, four (4) stabilization lagoons, and a sludge dewatering (containerized filter) system. The facility is permitted under the TPDES and may currently discharge an average of .45 million gallons per day (MGD). There is no peak flow associated with the plant as it is permitted as a lagoon system and must maintain a minimum 21 day residence time for disinfection purposes.

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Aerated Basin	1	90'x90'x13'
Lagoon #1	1	4.6 Acres, 6'Depth
Lagoon #2	1	5.1 Acres, 5.9'D
Lagoon #3	1	3.9 Acres, 5.9'D
Lagoon #4	1	3.1 Acres, 5.9'D

C. Process Flow Diagram

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

Attachment: #5

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

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

- Latitude: Click to enter text.
- Longitude: Click to enter text.

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

- Latitude: 32.062881
- Longitude: -98.337508

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

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

Attachment: #6

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

City of Dublin

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

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
		Choose an item.	
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

Section 5. Closure Plans (Instructions Page 45)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

Click to enter text.

Section 6. Permit Specific Requirements (Instructions Page 45)

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

A. Summary transmittal

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

☒ Yes ☐ No

If yes, provide the date(s) of approval for each phase: Click to enter text.

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

Click to enter text.

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

The permittee shall comply with the requirements of 30 TAC 309.13 (a)-(d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC 309.13 (e). The permit issued May 3, 1996 provided a variance to the buffer zone ownership requirements in accordance with 30 TAC Chapter 309.13. The area of land for which a variance is being requested is located on the north, east, and west boundary of the permittee's property. The property to the north is currently being used as a cemetery by the Old Dublin Cemetery Association and all property located within the buffer zone is within the 100-year floodplain

C. Other actions required by the current permit

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

☒ Yes ☐ No

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

Soil Samples.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

Click to enter text.

3. *Grit disposal*

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

☐ Yes ☐ No

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

Describe the method of grit disposal.

Click to enter text.

4. *Grease and decanted liquid disposal*

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

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

Click to enter text.

E. Stormwater management

1. *Applicability*

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

2. *MSGP coverage*

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

☐ Yes ☐ No

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

TXR05 Click to enter text. or TXRNE Click to enter text.

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

☐ Yes ☐ No

3. ***Conditional exclusion***

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

☐ Yes ☐ No

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

Click to enter text.

4. ***Existing coverage in individual permit***

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

☐ Yes ☐ No

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

Click to enter text.

5. ***Zero stormwater discharge***

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

☐ Yes ☐ No

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

Click to enter text.

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

6. *Request for coverage in individual permit*

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

☐ Yes ☐ No

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

Click to enter text.

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
Click to enter text.

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

1. *Acceptance of sludge from other WWTPs*

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

☐ Yes ☒ No

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

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

Click to enter text.

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

2. ***Acceptance of septic waste***

Is the facility accepting or will it accept septic waste?

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Click to enter text.

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

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

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

☐ Yes ☒ No

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

Click to enter text.

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

Is the facility in operation?

☒ Yes ☐ No

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

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

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

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

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

*TPDES permits only
†TLAP permits only

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

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

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Cory James

Facility Operator's License Classification and Level: WWOL C

Facility Operator's License Number: WW0041109

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

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

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

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (>= 2 years)
- ☐ Methane or Biogas Recovery

☐ Other Treatment Process: Click to enter text.

C. Biosolids Management

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

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Choose an item.	Choose an item.	Not Applicable		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

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

D. Disposal site

Disposal site name: City of Dublin

TCEQ permit or registration number: WQ0010405001

County where disposal site is located: Erath

E. Transportation method

Method of transportation (truck, train, pipe, other): Click to enter text.

Name of the hauler: Click to enter text.

Hauler registration number: Click to enter text.

Sludge is transported as a:

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

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

A. Beneficial use authorization

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

☒ Yes ☐ No

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

☒ Yes ☐ No

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

☒ Yes ☐ No

B. Sludge processing authorization

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

Sludge Composting	☐ Yes	☒ No
Marketing and Distribution of sludge	☐ Yes	☒ No
Sludge Surface Disposal or Sludge Monofill	☐ Yes	☒ No
Temporary storage in sludge lagoons	☐ Yes	☒ No

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

☐ Yes ☒ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:

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

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

  Attachment: Click to enter text.
- Site map:

  Attachment: Click to enter text.

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

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: Click to enter text.

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

Click to enter text.

B. Temporary storage information

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

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

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

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

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

C. Liner information

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

☐ Yes ☐ No

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

Click to enter text.

D. Site development plan

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

Click to enter text.

Attach the following documents to the application.

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

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

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

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

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

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

  Attachment: Click to enter text.

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

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

A. Additional authorizations

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

☐ Yes ☒ No

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

Click to enter text.

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

Click to enter text.

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

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

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: Click to enter text.

Section 14. Laboratory Accreditation (Instructions Page 56)

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

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

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

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

CERTIFICATION:

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

Printed Name: Cory James

Title: Public Works Director

Signature: _____

Date: 10/4/2024

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

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

Section 1. Justification for Permit (Instructions Page 57)

A. Justification of permit need

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

Click to enter text.

B. Regionalization of facilities

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

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

1. *Municipally incorporated areas*

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

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

☐ Yes ☐ No ☐ Not Applicable

If yes, within the city limits of: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

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

Attachment: Click to enter text.

2. *Utility CCN areas*

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

☐ Yes ☐ No

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

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

Attachment: Click to enter text.

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

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

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

Attachment: Click to enter text.

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

Attachment: Click to enter text.

Section 2. Proposed Organic Loading (Instructions Page 59)

Is this facility in operation?

☐ Yes ☐ No

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

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

A. Current organic loading

Facility Design Flow (flow being requested in application): Click to enter text.

Average Influent Organic Strength or BOD_5 Concentration in mg/l: Click to enter text.

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): Click to enter text.

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

Click to enter text.

B. Proposed organic loading

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

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD5 Concentration (mg/l)
Municipality		
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources		
AVERAGE BOD_5 from all sources		

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

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: Click to enter text.

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: Click to enter text.

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: Click to enter text.

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: Click to enter text.

Other: Click to enter text.

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click to enter text.

Total Suspended Solids, mg/l: Click to enter text.

Ammonia Nitrogen, mg/l: Click to enter text.

Total Phosphorus, mg/l: Click to enter text.

Dissolved Oxygen, mg/l: Click to enter text.

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☐ Chlorine: Click to enter text. mg/l after Click to enter text. minutes detention time at peak flow

Dechlorination process: Click to enter text.

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

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

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

Attachment: Click to enter text.

Section 5. Facility Site (Instructions Page 60)

A. 100-year floodplain

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

☐ Yes ☐ No

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

Click to enter text.

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

Click to enter text.

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

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

B. Wind rose

Attach a wind rose: Click to enter text.

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

A. Beneficial use authorization

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

☒ Yes ☐ No

If yes, attach the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451):** #11

B. Sludge processing authorization

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

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

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

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

Attach a solids management plan to the application.

Attachment: Click to enter text.

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

- Treatment units and processes dimensions and capacities

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

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

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

☐ Yes ☒ No

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

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

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

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

Attachment: Click to enter text.

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

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

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

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: Click to enter text.

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

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

Click to enter text.

C. Sea grasses

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Classified Segments (Instructions Page 64)

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

☐ Yes ☒ No

If yes, this Worksheet is complete.

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

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

Name of the immediate receiving waters: Resley Creek

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

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

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

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

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

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

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

☐ Perennial - normally flowing

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

☐ USGS flow records

☐ Historical observation by adjacent landowners

☒ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

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

Click to enter text.

D. Downstream characteristics

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

☐ Yes ☒ No

If yes, discuss how.

Click to enter text.

E. Normal dry weather characteristics

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

No foul odors detected, light green in color.

Date and time of observation: 09/23/24

Was the water body influenced by stormwater runoff during observations?

☐ Yes ☒ No

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

A. Upstream influences

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

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

B. Waterbody uses

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

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

C. Waterbody aesthetics

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

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

DOMESTIC WASTEWATER PERMIT APPLICATION
WORKSHEET 2.1: STREAM PHYSICAL CHARACTERISTICS

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

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

Section 1. General Information (Instructions Page 66)

Date of study: Click to enter text. Time of study: Click to enter text.

Stream name: Click to enter text.

Location: Click to enter text.

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

☐ Perennial ☐ Intermittent with perennial pools

Section 2. Data Collection (Instructions Page 66)

Number of stream bends that are well defined: Click to enter text.

Number of stream bends that are moderately defined: Click to enter text.

Number of stream bends that are poorly defined: Click to enter text.

Number of riffles: Click to enter text.

Evidence of flow fluctuations (check one):

☐ Minor ☐ moderate ☐ severe

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

Click to enter text.

Stream transects

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

Table 2.1(1) - Stream Transect Records

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

Section 3. Summarize Measurements (Instructions Page 66)

Streambed slope of entire reach, from USGS map in feet/feet: Click to enter text.

Approximate drainage area above the most downstream transect (from USGS map or county highway map, in square miles): Click to enter text.

Length of stream evaluated, in feet: Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width, in feet: Click to enter text.

Average stream depth, in feet: Click to enter text.

Average stream velocity, in feet/second: Click to enter text.

Instantaneous stream flow, in cubic feet/second: Click to enter text.

Indicate flow measurement method (type of meter, floating chip timed over a fixed distance, etc.): Click to enter text.

Size of pools (large, small, moderate, none): Click to enter text.

Maximum pool depth, in feet: Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

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

Identify the method of land disposal:

- ☒ Surface application
- ☒ Irrigation
- ☐ Drip irrigation system
- ☐ Evaporation
- ☐ Other (describe in detail): Click to enter text.
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system
- ☐ Evapotranspiration beds

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

For existing authorizations, provide Registration Number: Click to enter text.

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

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Sudan	208.70	0.45 MGD	N

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

Table 3.0(2) – Storage and Evaporation Ponds

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

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

Attachment: Click to enter text.

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

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

☐ Yes ☐ No

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

Click to enter text.

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

Click to enter text.

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

Click to enter text.

Section 5. Annual Cropping Plan (Instructions Page 68)

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

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

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

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment**: #12

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

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

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
See attachment #3	See attachment #3	See attachment #3	Choose an item.	
34071- 484507		Y	Open	150 ft buffer from Domestic Well or 500 ft from Public Water Supply
169751-254873		N	Plugged	150 ft buffer from Domestic Well or 500 ft from Public Water Supply
			Choose an item.	
			Choose an item.	

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

Attachment: #3

Section 7. Groundwater Quality (Instructions Page 69)

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

Attachment: Click to enter text.

Are groundwater monitoring wells available onsite? ☐ Yes ☐ No

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

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

Attachment: Click to enter text.

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

A. Soil map

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

Attachment: #9

B. Soil analyses

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

Attachment: #7

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 71)

Is the facility in operation?

☒ Yes ☐ No

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

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

Table 3.0(5) – Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated

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

Click to enter text.

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

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

Section 1. Surface Disposal (Instructions Page 72)

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

A. Irrigation

Area under irrigation, in acres: Click to enter text.

Design application frequency:

hours/day Click to enter text. **And** days/week Click to enter text.

Land grade (slope):

average percent (%): Click to enter text.

maximum percent (%): Click to enter text.

Design application rate in acre-feet/acre/year: Click to enter text.

Design total nitrogen loading rate, in lbs N/acre/year: Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Method of application: Click to enter text.

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

Attachment: Click to enter text.

B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: Click to enter text.

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

Attachment: Click to enter text.

C. Evapotranspiration beds

Number of beds: Click to enter text.

Area of bed(s), in acres: Click to enter text.

Depth of bed(s), in feet: Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds, in acre-feet: Click to enter text.

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

Attachment: Click to enter text.

D. Overland flow

Area used for application, in acres: Click to enter text.

Slopes for application area, percent (%): Click to enter text.

Design application rate, in gpm/foot of slope width: Click to enter text.

Slope length, in feet: Click to enter text.

Design BOD_5 loading rate, in lbs BOD_5/acre/day: Click to enter text.

Design application frequency:

hours/day: Click to enter text. **And** days/week: Click to enter text.

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

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 73)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

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

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

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

Section 1. Subsurface Application (Instructions Page 74)

Identify the type of system:

- ☐ Conventional Gravity Drainfield, Beds, or Trenches (new systems must be less than 5,000 GPD)
- ☐ Low Pressure Dosing
- ☐ Other, specify: Click to enter text.

Application area, in acres: Click to enter text.

Area of drainfield, in square feet: Click to enter text.

Application rate, in gal/square foot/day: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

Area of trench, in square feet: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Number of beds: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Infiltration rate, in inches/hour: Click to enter text.

Storage volume, in gallons: Click to enter text.

Area of bed(s), in square feet: Click to enter text.

Soil Classification: Click to enter text.

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

Attachment: Click to enter text.

Section 2. Edwards Aquifer (Instructions Page 74)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

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

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

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

Section 1. Administrative Information (Instructions Page 75)

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

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

☐ Yes ☐ No

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

Click to enter text.

C. Owner of the subsurface area drip dispersal system: Click to enter text.

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

☐ Yes ☐ No

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

Click to enter text.

E. Owner of the land where the subsurface area drip dispersal system is located: Click to enter text.

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

☐ Yes ☐ No

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

Click to enter text.

Section 2. Subsurface Area Drip Dispersal System (Instructions Page 75)

A. Type of system

☐ Subsurface Drip Irrigation

☐ Surface Drip Irrigation

☐ Other, specify: Click to enter text.

B. Irrigation operations

Application area, in acres: Click to enter text.

Infiltration Rate, in inches/hour: Click to enter text.

Average slope of the application area, percent (%): Click to enter text.

Maximum slope of the application area, percent (%): Click to enter text.

Storage volume, in gallons: Click to enter text.

Major soil series: Click to enter text.

Depth to groundwater, in feet: Click to enter text.

C. Application rate

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

Hydraulic application rate, in gal/square foot/day: Click to enter text.

Nitrogen application rate, in lbs/gal/day: Click to enter text.

D. Dosing information

Number of doses per day: Click to enter text.

Dosing duration per area, in hours: Click to enter text.

Rest period between doses, in hours: Click to enter text.

Dosing amount per area, in inches/day: Click to enter text.

Number of zones: Click to enter text.

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

Section 3. Required Plans (Instructions Page 75)

A. Recharge feature plan

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

Attachment: Click to enter text.

B. Soil evaluation

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

Attachment: Click to enter text.

C. Site preparation plan

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

Attachment: Click to enter text.

D. Soil sampling/testing

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

Attachment: Click to enter text.

Section 4. Floodway Designation (Instructions Page 76)

A. Site location

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

☐ Yes ☐ No

B. Flood map

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

Attachment: Click to enter text.

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

A. Buffer Map

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

Attachment: Click to enter text.

B. Buffer variance request

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

☐ Yes ☐ No

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

Attachment: Click to enter text.

Section 6. Edwards Aquifer (Instructions Page 76)

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

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

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

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

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(1) – Toxics Analysis

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) **(*1)**				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide **(*2)**				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Polychlorinated Biphenyls (PCB's) **(*3)**				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				5

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

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

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

Section 2. Priority Pollutants

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

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

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

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

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

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

Table 4.0(2)B – Volatile Compounds

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

Table 4.0(2)C – Acid Compounds

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

Table 4.0(2)D – Base/Neutral Compounds

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

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

Table 4.0(2)E - Pesticides

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

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

Section 3. Dioxin/Furan Compounds

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

☐ 2,4,5-trichlorophenoxy acetic acid

Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid

Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate

Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate

Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol

Common Name TCP, CASRN 95-95-4

☐ hexachlorophene

Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

Click to enter text.

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

☐ Yes ☐ No

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

Click to enter text.

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

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

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)F – Dioxin/Furan Compounds

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

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: TOXICITY TESTING REQUIREMENTS

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

This worksheet is not required minor amendments without renewal.

Section 1. Required Tests (Instructions Page 88)

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

7-day Chronic: Click to enter text.

48-hour Acute: Click to enter text.

Section 2. Toxicity Reduction Evaluations (TREs)

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

☐ Yes ☐ No

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

Click to enter text.

Section 3. Summary of WET Tests

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

Table 5.0(1) Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following **is required** for **all publicly owned treatment works.**

Section 1. All POTWs (Instructions Page 89)

A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 1

Average Daily Flows, in MGD: 0.00052

B. Treatment plant interference

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

☐ Yes ☒ No

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

Click to enter text.

C. Treatment plant pass through

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

☐ Yes ☒ No

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

Click to enter text.

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☐ No

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

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

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

A. Substantial modifications

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

☐ Yes ☒ No

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

Click to enter text.

B. Non-substantial modifications

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

☐ Yes ☒ No

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

Click to enter text.

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

☐ Yes ☒ No

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

Click to enter text.

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

A. General information

Company Name: Click to enter text.

SIC Code: Click to enter text.

Contact name: Click to enter text.

Address: Click to enter text.

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

Telephone number: Click to enter text.

Email address: Click to enter text.

B. Process information

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

Click to enter text.

C. Product and service information

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

Processing wild game.

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☒ No

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

Category: Subcategories: N/A

Click or tap here to enter text. N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

F. Industrial user interruptions

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

☐ Yes ☒ No

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

Click to enter text.

WORKSHEET 7.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

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

For TCEQ Use Only
Reg. No._____
Date Received_____
Date Authorized_____

Section 1. General Information (Instructions Page 92)

1. **TCEQ Program Area**

   Program Area (PST, VCP, IHW, etc.): Click to enter text.

   Program ID: Click to enter text.

   Contact Name: Click to enter text.

   Phone Number: Click to enter text.

2. **Agent/Consultant Contact Information**

   Contact Name: Click to enter text.

   Address: Click to enter text.

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

   Phone Number: Click to enter text.

3. **Owner/Operator Contact Information**

   ☐ Owner ☐ Operator

   Owner/Operator Name: Click to enter text.

   Contact Name: Click to enter text.

   Address: Click to enter text.

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

   Phone Number: Click to enter text.

4. **Facility Contact Information**

   Facility Name: Click to enter text.

   Address: Click to enter text.

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

   Location description (if no address is available): Click to enter text.

   Facility Contact Person: Click to enter text.

   Phone Number: Click to enter text.

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

Latitude: Click to enter text.

Longitude: Click to enter text.

Method of determination (GPS, TOPO, etc.): Click to enter text.

Attach topographic quadrangle map as attachment A.

6. **Well Information**

Type of Well Construction, select one:

- ☐ Vertical Injection
- ☐ Subsurface Fluid Distribution System
- ☐ Infiltration Gallery
- ☐ Temporary Injection Points
- ☐ Other, Specify: Click to enter text.

Number of Injection Wells: Click to enter text.

7. **Purpose**

Detailed Description regarding purpose of Injection System:

Click to enter text.

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

8. **Water Well Driller/Installer**

Water Well Driller/Installer Name: Click to enter text.

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

Phone Number: Click to enter text.

License Number: Click to enter text.

Section 2. Proposed Down Hole Design

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

Table 7.0(1) – Down Hole Design Table

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

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

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

System(s) Dimensions: Click to enter text.

System(s) Construction: Click to enter text.

Section 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: Click to enter text.
2. Receiving Formation Name of Injection Zone: Click to enter text.
3. Well/Trench Total Depth: Click to enter text.
4. Surface Elevation: Click to enter text.
5. Depth to Ground Water: Click to enter text.
6. Injection Zone Depth: Click to enter text.
7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No

   Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

   Name: Click to enter text.

   Thickness: Click to enter text.
8. Provide a list of contaminants and the levels (ppm) in contaminated aquifer

   Attach as Attachment E.
9. Horizontal and Vertical extent of contamination and injection plume

   Attach as Attachment F.
10. Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc.

    Attach as Attachment G.
11. Injection Fluid Chemistry in PPM at point of injection

    Attach as Attachment H.
12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: Click to enter text.
13. Maximum injection Rate/Volume/Pressure: Click to enter text.
14. Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.
15. Injection wells within 1/4 mile radius (attach map as Attachment J): Click to enter text.
16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): Click to enter text.
17. Sampling frequency: Click to enter text.
18. Known hazardous components in injection fluid: Click to enter text.

Section 5. Site History

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

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

Class V Injection Well Designations

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

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #1

TCEQ Core Data Form, PLS & Application Fee Check

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

325.695.1070
817.594.9880
info@jacobmartin.com
www.jacobmartin.com
3465 Curry Lane
Abilene, TX 76906
1508 Santa Fe, Suite 203
Weatherford, TX 76086

PAID 10-7-24

RECEIVED 10-7-24

TCEQ Use Only

TCEQ Core Data Form 2024-2025

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 600625925		RN 101178044

SECTION II: Customer Information

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

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

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

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

City of Dublin

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

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ Yes ☐ No

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

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

15. Mailing Address: 213 E. Blackjack St.

City	Dublin	State	TX	ZIP	76446	ZIP + 4	2903

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	cjames@ci.dublin.tx.us

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

(234) 434-1082		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

City of Dublin WWTP

23. Street Address of the Regulated Entity: *(No PO Boxes)*							
	City		**State**		**ZIP**		**ZIP + 4**	
24. County	Erath						

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

25. Description to Physical Location:	Located approximately 0.75 miles southwest of the intersection of FM 219 and FM 1702 and approximately one mile southeast of the City of Dublin, in Erath County, Texas 76446.				
26. Nearest City			**State**	**Nearest ZIP Code**	
Dublin			TX	76446	

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

27. Latitude (N) In Decimal:	32.062881		**28. Longitude (W) In Decimal:**	-98.337508	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4952		221320	

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

Collecting and treating wastewater.

34. Mailing Address:	**213 E Blackjack St.**						
	City	**Dublin**	**State**	**TX**	**ZIP**	**76446**	**ZIP + 4**	**2903**
35. E-Mail Address:	**cjames@ci.dublin.tx.us**						

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(254) 445-3331		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Sarah Fernandez	41. Title:	Environmental Coordinator

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(325) 695-1070		( ) -	sfernandez@jacobmartin.com

SECTION V: Authorized Signature

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

Company:	City of Dublin	Job Title:	Mayor	
Name *(In Print)*:	David Leatherwood		Phone:	(254) 445- 3331
Signature:			Date:	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

City of Dublin (CN600625925) operates City of Dublin WWTP (RN101178044), a Wastewater Treatment Plant. The facility is located at 213 E BLACKJACK ST, in Dublin, Erath County, Texas 76446. The City of Dublin is applying to renew their Wastewater Treatment Plant Permit. *<<For TLAP applications include the following sentence, otherwise delete:>>* This permit will not authorize a discharge of pollutants into water in the state.

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #2

USGS Topographic Map

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

325.695.1070
817.594.9880

info@jacobmartin.com
www.jacobmartin.com

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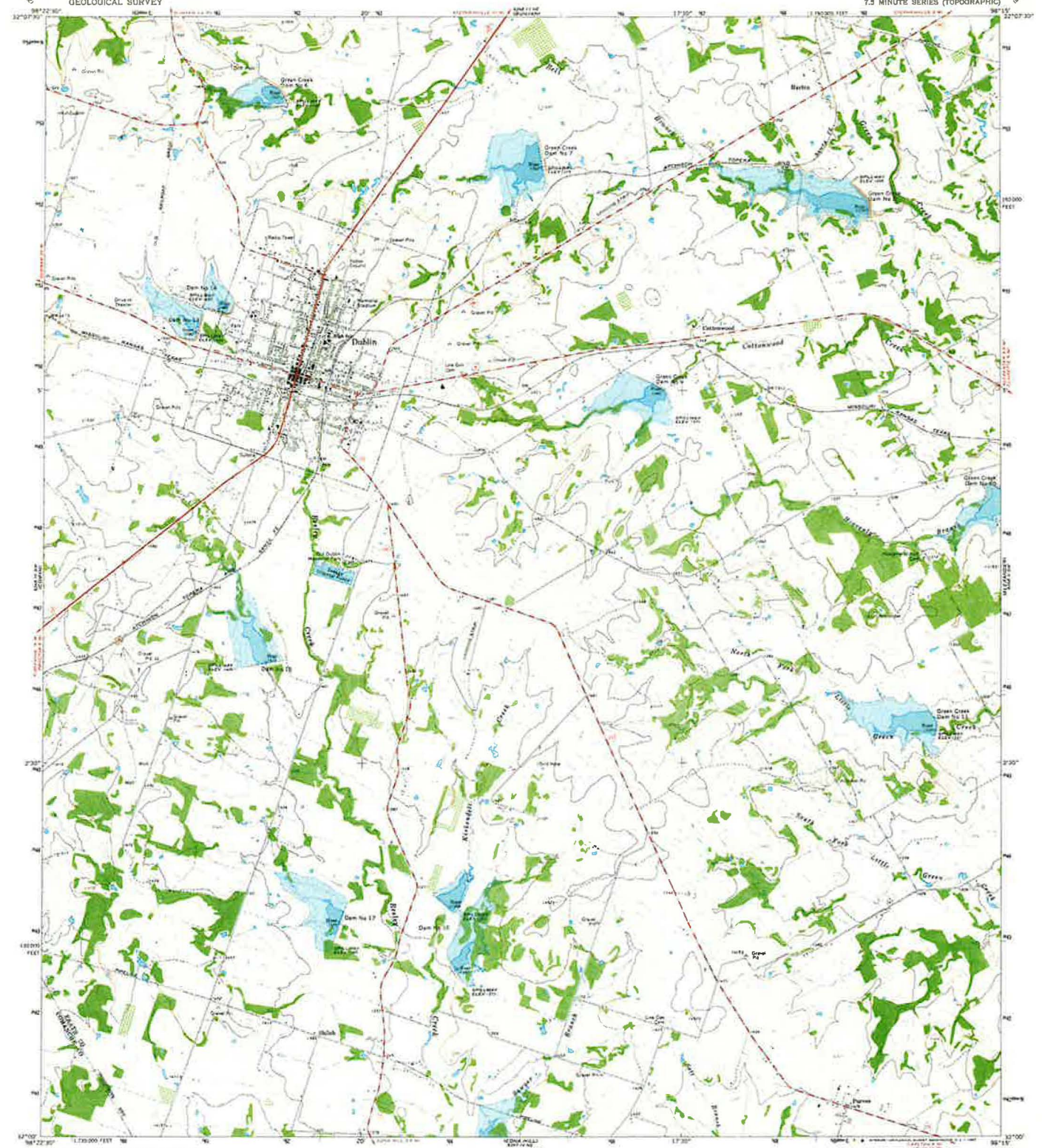
Abilene, TX 76906

1508 Santa Fe, Suite 203
Weatherford, TX 76086


USGS
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
The National Map
US Topo
DUBLIN QUADRANGLE
TEXAS
7.5-MINUTE SERIES
City of Dublin WWTP
WQ0010405001
Permit Renewal
USGS Map
JACOBS MARTIN
FIRM # - 21448
Produced by the United States Geological Survey
SCALE 1:24 000
DUBLIN, TX
2016

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DUBLIN QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1964. Field checked 1965

Polyconic projection. 1927 North American datum
10,000-foot grid based on Texas coordinate system, north central zone
1000-meter Universal Transverse Mercator grid ticks, zone 14, shown in blue

Fine red dashed lines indicate selected fence lines

Areas covered by dashed light blue pattern are subject to controlled inundation

SCALE 1:24000

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Heavy duty		Light duty	
Medium duty		Unimproved dirt	

U.S. Route State Route

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

DUBLIN, TEX.
N3200—W9815/7.5
1965

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #3

SPIFF
With location of wells, and boundaries of application area

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

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817.594.9880
info@jacobmartin.com
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Abilene, TX 76906
1508 Santa Fe, Suite 203
Weatherford, TX 76086

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

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

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

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

The following applies to all applications:

1. Permittee: City of Dublin

   Permit No. WQ00 10405001 EPA ID No. TX 0054348

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

   Located approximately 0.75 miles southwest of the intersection of FM 219 and FM 1702 and approximately one mile southeast of the City of Dublin, in Erath County, Texas 76446

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

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

First and Last Name: Cory James

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Public Works Director

Mailing Address: 213 E Blackjack St

City, State, Zip Code: Dublin, TX 76446

Phone No.: 254-445-3331 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

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

City and Bar B/ Graham Partners, LLC

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

To Resley Creek, thence to Leon River Below Proctor Lake in Segment No. 1221 of the Brazos River Basin

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

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

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

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

☐ Disturbance of vegetation or wetlands

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

Click here to enter text.

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

Click here to enter text.

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

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

Click here to enter text.

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

Click here to enter text.


USGS
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
The National Map
US Topo
DUBLIN QUADRANGLE
TEXAS
7.5-MINUTE SERIES
City of Dublin WWTP
WQ0010405001
Permit Renewal
SPIF Map
JACOB MARTIN
FIRM - F1948
Produced by the United States Geological Survey
SCALE 1:24 000
ROAD CLASSIFICATION
DUBLIN, TX
2016

Dublin WWTP Well Map

Texas Water Development Board

BRACS Database

Well Reports

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

1:36,112

Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Well Report Tracking Number	Well Type	Proposed Use	County	Well Owner	Well Street	Well City	Well Zip Code	Latitude (DD)	Longitude (DD)	Date of Well Completion	Borehole Depth (ft)	Injurious Water Quality	Plugged, Cased, Open
34071	New Well	Monitor	Erath	Otis Harvey	518 Patrick	Dublin	76446	32.07861	-98.345	25-Feb-04	25	no	Open
40300	New Well	Domestic	Erath	Beukeboom Dairy	3541 CR 356	Dublin	76446	32.05028	-98.35445	29-Jul-03	440	no	Open
52753	New Well	Env. Soil Boring	Erath	City of Dublin	200 South Patrick	Dublin	76446	32.06667	-98.33333	2-Feb-05	15	no	Open
57175	New Well	Monitor	Erath	GoCo Marketing, In	518 Patrick	Dublin	76446	32.08306	-98.34333	21-Mar-05	14	no	Open
83461	New Well	Domestic	Erath	MIKE SUMMERS		Dublin	76446	32.05472	-98.35361	21-Mar-06	400	no	Open
91751	New Well	Monitor	Erath	Otis Harvy	417 S. pattrick	Dublin	76446	32.08	-98.34389	15-Aug-06	20		Open
95249	New Well	Domestic	Erath	Mike Williams	515 myrtle	Dublin	76446	32.07972	-98.33833	26-Sep-06	100	no	Open
95250	New Well	Domestic	Erath	Tommas Brown	701 cottonwood	Dublin	76446	32.07556	-98.33972	27-Sep-06	60	no	Open
159876	New Well	Domestic	Erath	Jerry Stephens	Rt 2 CR 388	Dublin	76446	32.07139	-98.34945	7-Apr-05	378		Plugged
169751	New Well	Domestic	Erath	Medina, Sammul	Off CR 304	Dublin	76446	32.0675	-98.32028	21-Jun-07	138	no	Plugged
171793	Replaceme	Stock	Erath	Beukeboom Dairy	3541 CR 336	Dublin	76446	32.0475	-98.3575	15-Mar-09	475	no	Plugged
213894	Replaceme	Stock	Erath	Beukeboom Dairy	3541 CR 336	Dublin	76446	32.04806	-98.35778	22-Apr-10	465	no	Plugged
230132	New Well	Domestic	Erath	Juan Rodriguez	1665 S FM 219	Dublin	76446	32.06111	-98.32056	15-Sep-10	135	no	Plugged
254873	New Well	Domestic	Erath	David Faries	340 S. Camden	Dublin	76446	32.08083	-98.34195	19-Nov-06	98	no	Open
255077	New Well	Irrigation	Erath	Hubert Reed	223 Trowbridge	Dublin	76446	32.08056	-98.34611	28-Sep-06	98	no	Open
288758	New Well	Domestic	Erath	Roy Tyce	2415 CR 336	Dublin	76446	32.05833	-98.35222	1-May-12	120	no	Open
322409	New Well	Irrigation	Erath	Ronnie Belew		Dublin	76446	32.07222	-98.3325	25-May-13	100	no	Open
336217	New Well	Domestic	Erath	Felipe Calderon	Off of CR 338	Dublin	76446	32.05972	-98.35972	14-Jun-12	470	no	Open
345633	New Well	Irrigation	Erath	Paul Bradberry	905 S. Liberty	Dublin	76446	32.07222	-98.3375	28-Oct-13	455	no	Open
356385	New Well	Domestic	Erath	Bubba Strube	2875 CR 322	Dublin	76446	32.0525	-98.33778	12-Feb-14	415	no	Open
387154	New Well	Irrigation	Erath	Rod McNeal	405 PR 1375	Dublin	76446	32.04583	-98.33083	22-Jan-15	440	no	Open
428527	New Well	Irrigation	Erath	Paul Bradberry	FM 219	Dublin	76446	32.07468	-98.33592	3-Aug-16	115	no	Open
439060	New Well	Domestic	Erath	David Fritts	630 SW US HWY 37	Dublin	76446	32.0679	-98.36405	12-Dec-16	120	no	Open
461718	New Well	Domestic	Erath	Robert Hooper	3085 CR 336	Dublin	76446	32.05458	-98.35419	15-May-17	456	no	Open
484507	New Well	Domestic	Erath	BILL MCKESSON	1543 PR 1451	Dublin	76446	32.05222	-98.32583	10-Jul-18	430	no	Open

STATE OF TEXAS WELL REPORT for Tracking #213894

Owner:	**Beukeboom Dairy**	Owner Well #:	**No Data**
Address:	**3541 CR 336 Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**3541 CR 336 Dublin, TX 76446**	Latitude:	**32° 02' 53" N**
		Longitude:	**098° 21' 28" W**
Well County:	**Erath**	Elevation:	**1423 ft. above sea level**
Type of Work:	**Replacement**	Proposed Use:	**Stock**

Drilling Start Date: **4/22/2010** Drilling End Date: **4/23/2010**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7	**0**	**465**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
310	**465**	**Gravel**	**.25**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**1 cement**
3	**150**	**5 bentonite**

Seal Method: **pour**

Sealed By: **Driller**

Variance Number: **na**

Distance to Property Line (ft.): **125**

Distance to Septic Field or other concentrated contamination (ft.): **125**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **owner**

Surface Completion: **Surface Sleeve Installed**

Water Level: **310 ft.** below land surface, and **0 GPM** artesian flow on **2010-04-23** Measurement Method: **Unknown**

Packers: **none**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 50 GPM with 130 ft. drawdown after .5 hours**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
na		

Water Quality:

Strata Depth (ft.)	Water Type
399	fresh

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**
PO Box 402
Stephenville, TX 76401

Driller Name: **Dowell Well Service** License Number: **1891**

Apprentice Name: **Robert Loudermilk** Apprentice Number: **57240**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	7	brown sandy clay
7	14	tan sandy clay
14	35	sandy blue clay
35	64	sand and sandstone
64	83	sandy blue clay
83	231	grey shale
231	318	sandy blue clay
318	366	sand, sandstone and gravel
366	399	red clay
399	410	sand
410	420	sandy blue clay with sand streaks
420	438	sand and sandstone with clay streaks
438	465	tan clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4.5	N	PVC	screen 405 to 465 SDR 17
4.5	N	PVC	blank 0 to 405 SDR 17

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #171793

Owner:	**Beukeboom Dairy**	Owner Well #:	**1**
Address:	**3541 CR 336 Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**3541 CR 336 Dublin, TX 76446**	Latitude:	**32° 02' 51" N**
		Longitude:	**098° 21' 27" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**Replacement**	Proposed Use:	**Stock**

Drilling Start Date: **3/10/2009** Drilling End Date: **3/16/2009**

Borehole:

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
7	0	475

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
200	450	Gravel	.25"

Annular Seal Data:

Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
0	4	1 cement
4	200	4 bentonite

Seal Method: **pour**

Sealed By: **Driller**

Variance Number: **na**

Distance to Property Line (ft.): **over 53**

Distance to Septic Field or other concentrated contamination (ft.): **over 120**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **measured**

Surface Completion: **Surface Sleeve Installed**

Water Level: **375 ft.** below land surface, and **0 GPM** artesian flow on **2009-03-16** Measurement Method: **Unknown**

Packers: **na**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 40 GPM with 100 ft. drawdown after 2 hours**

Plug Information:

Description (number of sacks & material)	Top Depth (ft.)	Bottom Depth (ft.)
na		

Water Quality:

Strata Depth (ft.)	Water Type
407	fresh

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

PO Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Apprentice Name: **Robert Loudermilk** Apprentice Number: **57240**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	12	caliche
12	54	tan sandy clay
54	75	gray sandy clay
75	114	sandy blue clay
114	227	gray shale and limestone
227	260	sandy blue clay
260	297	sandy blue clay with sandstone streaks
297	370	sand and sandstone
370	377	sandy blue clay
377	407	red clay
407	450	sand, sandstone and gravel
450	475	red clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4.5	N	PVC	screen 370 to 450 SDR 17
4.5		PVC	blank 0 to 370 SDR 17

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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STATE OF TEXAS WELL REPORT for Tracking #484507

Owner:	**BILL MCKESSON**	Owner Well #:	**1**
Address:	**1543 PR 1451 DUBLIN, TX 76446**	Grid #:	**31-63-8**
Well Location:	**1543 PR 1451 DUBLIN, TX 76446**	Latitude:	**32° 01' 36.48" N**
		Longitude:	**098° 11' 35.88" W**
Well County:	**Erath**	Elevation:	**1270 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **7/9/2018** Drilling End Date: **7/11/2018**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**100**
6.25	**100**	**430**

Drilling Method: **Air Rotary**

Borehole Completion: **PRESSURE CEMENTED**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**388**	**Cement 51 Bags/Sacks**

Seal Method: **PRESSURE CEMENTED**

Sealed By: **Driller**

Distance to Property Line (ft.): **5+**

Distance to Septic Field or other concentrated contamination (ft.): **50+**

Distance to Septic Tank (ft.): **50+**

Method of Verification: **HAND MEASURED**

Surface Completion: **Steel Cased** **Surface Completion by Driller**

Water Level: **274 ft.** below land surface on **2018-07-11**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **378**

Well Tests: **Bailer** **Yield: 15 GPM with 0 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
375 - 410	2ND TRINITY

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **POLLOCK WATER WELL**

PO BOX 82
GLEN ROSE, TX 76043

Driller Name: **Eddie J Pollock** License Number: **1551**

Comments: **GPS coordinates amended by MTGCD 7/2/2024**

Report Amended on 7/2/2024 by Request #42721

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	20	SURFACE
20	168	GLENROSE LIME
168	225	1ST TRINITY
225	230	LARGE VOID
230	258	SAND RED BED
258	287	LOOSE SAND
287	305	SANDY SHALE
305	350	SAND
350	375	SANDY RED BED
375	410	2ND TRINITY
410	430	YELLOW

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Steel		0	388
4.5	Perforated or Slotted	New Steel		388	430

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STATE OF TEXAS WELL REPORT for Tracking #461718

Owner:	**Robert Hooper**	Owner Well #:	**No Data**
Address:	**3085 CR 336 Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 03' 16.5" N**
Well Location:	**3085 CR 336 Dublin, TX 76446**	Longitude:	**098° 21' 15.07" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **5/16/2017** Drilling End Date: **5/16/2017**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
11	**0**	**5**
8	**5**	**20**
7	**20**	**456**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
240	**456**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**10**	**Portland Cement 3 Bags/Sacks**
10	**240**	**Benseal 9 Bags/Sacks**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **>50**

Distance to Septic Field or other concentrated contamination (ft.): **>100**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **329 ft.** below land surface on **2017-05-16**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **380**

Well Tests: **Jetted** **Yield: 20-30 GPM after 24 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

The driller did certify that while drilling, deepening or otherwise altering the above described well, injurious water or constituents was encountered and the landowner or person having the well drilled was informed that such well must be completed or plugged in such a manner as to avoid injury or pollution.

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Associated Well Services, Inc.**

PO BOX 16
STEPHENVILLE, TX 76401

Driller Name: **Justin Moore** License Number: **59346**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Topsoil
1	4	Yellow and Tan Clay
4	17	Tan Sand
17	65	Yellow Sandy Clay and Tan Sandy Clay
65	215	Grey Clay, Shale and Limestone
215	270	Blue and Gray with Coal Streak
270	310	Sand and Gravel with Coal Streaks
310	315	Sandy Blue Clay
315	345	Sand and Gravel
345	355	BLue Sandy Clay
355	375	Sand and Tiny Gravel
375	400	Red Clay
400	430	Sand Tiny Gravel and Sandy Blue Gray

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4	Blank	New Plastic (PVC)	SCh 40	0	356
4	.020 PVC Screen	New Plastic (PVC)	Sch 40	356	456

430	456	Yellow Clay and Shale

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STATE OF TEXAS WELL REPORT for Tracking #439060

Owner:	**David Fritts**	Owner Well #:	**No Data**
Address:	**P.O. Box 11 Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**2630 SW US HWY 377 Dublin, TX 76446**	Latitude:	**32° 04' 04.44" N**
		Longitude:	**098° 21' 50.58" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **12/13/2016** Drilling End Date: **12/13/2016**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7	**0**	**120**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
30	**120**	**Gravel**	**0.25"**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**Cement 1 Bags/Sacks**
3	**40**	**Bentonite 2 Bags/Sacks**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **53**

Distance to Septic Field or other concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Owner**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **40 ft.** below land surface, and **0 GPM** artesian flow on **2016-12-13**

Packers: **No Data**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 8 GPM with 60 ft. drawdown after 0.5 hours**

Water Quality:

Strata Depth (ft.)	Water Type
44 - 74	Paluxy

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

P.O. Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	6	Brown Clay
6	44	Tan Sandy Clay
44	53	Sand
53	74	Blue Sandy Clay
74	120	Grey Shale/Limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4	Blank	New Plastic (PVC)	40	0	40
4	Screen	New Plastic (PVC)	40	40	120

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(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #428527

Owner:	**Paul Bradberry**	Owner Well #:	**No Data**
Address:	**621 Patrick** **Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 04' 28.86" N**
Well Location:	**FM 219** **Dublin, TX 76446**	Longitude:	**098° 20' 09.3" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **8/4/2016** Drilling End Date: **8/4/2016**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	**7**	**0**	**115**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	**60**	**115**	**Gravel**	**0.25"**

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	**0**	**3**	**Cement 1 Bags/Sacks**
	3	**60**	**Bentonite 3 Bags/Sacks**

Seal Method: **Positive Displacement**

Sealed By: **Driller**

Distance to Property Line (ft.): **17**

Distance to Septic Field or other concentrated contamination (ft.): **120+**

Distance to Septic Tank (ft.): **100+**

Method of Verification: **Tape**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **65 ft.** below land surface, and **0 GPM** artesian flow on **2016-08-04**

Packers: **No Data**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 20 GPM with 40 ft. drawdown after 0.5 hours**

Water Quality:

Strata Depth (ft.)	Water Type
74 - 95	Paluxy

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

P.O. Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	32	Caliche
32	74	Tan Sandy Clay
74	95	Tan Sand with Clay Streaks
95	107	Grey Shale/Limestone
107	115	Grey Shale/Limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4	Blank	New Plastic (PVC)	40	0	75
4	Screen	New Plastic (PVC)	40	75	115

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STATE OF TEXAS WELL REPORT for Tracking #387154

Owner:	**Rod McNeal**	Owner Well #:	**No Data**
Address:	**405 PR 1375 Dublin, TX 76446**	Grid #:	**31-62-5**
		Latitude:	**32° 02' 45" N**
Well Location:	**405 PR 1375 Dublin, TX 76446**	Longitude:	**098° 19' 51" W**
Well County:	**Erath**	Elevation:	**1422 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **1/21/2015** Drilling End Date: **1/23/2015**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9.875	**0**	**440**

Drilling Method: **Air Rotary; Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
180	**440**	**Gravel**	**1/2**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**5**	**2 portland**
5	**180**	**13 binseal**

Seal Method: **pumped, and poured**

Sealed By: **rig crew**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **268 ft.** below land surface, and **0 GPM** artesian flow on **2015-01-23**

Measurement Method: **Unknown**

Packers: **none**

Type of Pump: **No Data**

Well Tests: **Estimated** **Yield: 150 + GPM**

Water Quality:

Strata Depth (ft.)	Water Type
295 to 427	fresh

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Spencer's Water Well Service**

428 Hwy 2921
De Leon, TX 76444

Driller Name: **John Spencer** License Number: **54697**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	4	red clay
4	9	sandy red clay
9	45	sand with blue clay strips
45	212	blue shale with lime strips
212	295	sand with blue clay strips
295	308	sand with small gravel strips *
308	310	blue clay
310	315	sand
315	338	blue clay with sand and gravel strips *
338	339	red and blue clay
339	340	gravel *
340	348	red and blue clay with gravel strips *
348	397	red clay
397	427	sand with gravel strips, with blue clay strips *
427	440	shale

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
6-1/4"	new	sdr 17 plastic	pipe 0 to 280
			360 to 380
6-1/4"	new	sdr 17 plastic	slotted pipe 280 to 360 .040
			380 to 440 .040
4 feet of 10-3/4"		steel	pipe

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STATE OF TEXAS WELL REPORT for Tracking #356385

Owner:	**Bubba Strube**	Owner Well #:	**Well Log 3065**
Address:	**2875 CR 322 Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 03' 09" N**
Well Location:	**2875 CR 322 Dublin, TX 76446**	Longitude:	**098° 20' 16" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **2/13/2014** Drilling End Date: **2/13/2014**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**100**
6.75	**100**	**415**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
210	**415**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**15**	**3 Port. Cem.**
15	**210**	**10 Benseal**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **>50**

Distance to Septic Field or other concentrated contamination (ft.): **>50**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **270 ft.** below land surface on **2014-02-13** Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Submersible** Pump Depth (ft.): **340**

Well Tests: **Jetted** **Yield: 100 GPM after 1 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Associated Well Services Inc.**

PO Box 16
Stephenville, TX 76401

Driller Name: **Colton Aardal** License Number: **55034**

Comments: **^EAD**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	2	topsoil
2	25	brown clay and sandy clay
25	180	gray shale, limestone, gray clay
180	250	sandy red and gray clay
250	280	sand and sandy blue clay
280	330	sand and gravel
330	360	red and blue clay
360	395	sand, gravel, and sandstone
395	415	yellow shale

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4" New Blank PVC 0'-315' Sch 40			
4" New 0.020" PVC Screen 315'-415' Sch 40			

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STATE OF TEXAS WELL REPORT for Tracking #345633

Owner:	**Paul Bradberry**	Owner Well #:	**No Data**
Address:	**621 Patrick** **Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 04' 20" N**
Well Location:	**905 S. Liberty** **Dublin, TX 76446**	Longitude:	**098° 20' 15" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **10/29/2013** Drilling End Date: **10/29/2013**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**455**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
180	**430**	**Gravel**	**.25**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**1 Cement**
3	**180**	**7 Bentonite**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **50**

Distance to Septic Field or other concentrated contamination (ft.): **110**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Owner**

Surface Completion: **Surface Sleeve Installed**

Water Level: **335 ft.** below land surface, and **0 GPM** artesian flow on **2013-10-29**

Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Submersible**

Well Tests: **Jetted** **No Test Data Specified**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
N/A		

Water Quality:

Strata Depth (ft.)	Water Type
314	Fresh

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

P.O. Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	17	caliche
12	221	grey shale, limestone
17	22	tan sandy clay
22	80	sand
80	126	blue sandy clay
221	269	blue sandy clay
269	314	sand
314	372	sand, sandstone, gravel
372	393	blue sandy clay
393	441	sand, sandstone
441	455	tan clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 N PVC screen 370-430 SDR17
4.5 N PVC blank 350-370 SDR17
4.5 N PVC screen 330-350 SDR17
4.5 N PVC blank 0-330

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #336217

Owner:	**Felipe Calderon**	Owner Well #:	**Well Log 2826**
Address:	**3950 CR 338 Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 02' 54.87" N**
Well Location:	**Off of CR 338 Dublin, TX 76446**	Longitude:	**098° 21' 54.85" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **6/15/2012** Drilling End Date: **6/15/2012**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**7.875**	**0**	**470**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
245	**470**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**10**	**4 Portland cmt**
10	**140**	**7 Benseal**
240	**245**	**1 Benseal**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **60**

Distance to Septic Field or other concentrated contamination (ft.): **50+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **320 ft.** below land surface on **2012-06-15** Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Submersible** Pump Depth (ft.): **440**

Well Tests: **Pump** **Yield: 10 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
245-455	Trinity

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information:

Driller Name: **Josh Aardal** License Number: **55033**

Comments: **^ch**

GPS amended by MTGCD 3/6/2024

Report Amended on 3/7/2024 by Request #41666

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	topsoil
1	30	yellow clay, shale and caliche
30	37	yellow sand and sandy clay layers
37	50	blue yellow red clay and sandy clay
50	58	yellow white sandy clay and streaks of sand
58	86	sand, streaks of sandstone and snady clay
86	115	blue sandy claya nd streaks of sand
115	245	grey clay, shale and limestone
245	315	grey blue red clay, snady clay and streaks of sand
315	325	sand, sandstone and small gravel
325	333	blue sandy clay and sandstone
333	350	sand, tiny gravel and blue sandy clay layers

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Blank PVC	0-270 Sch 40
4	New	0.020" PVC Screen	270-470 Sch 40

350	376	sand and tniy gravel
376	395	blue sandy clay and sand layers
395	430	red blue clay and sandy clay
430	436	blue sandy clay and sand layers
436	455	sand, tiny gravel, streaks of blue sandy clay and sandstone
455	470	red purple yellow clay and shale

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STATE OF TEXAS WELL REPORT for Tracking #322409

Owner:	**Ronnie Belew**	Owner Well #:	**No Data**
Address:	**400 W. Clenton Dublin, TX 76446**	Grid #:	**31-62-5**
Well Location:	**No Data**	Latitude:	**32° 04' 20" N**
		Longitude:	**098° 19' 57" W**
Well County:	**Erath**	Elevation:	**1314 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **5/26/2013** Drilling End Date: **5/26/2013**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**100**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
15	**100**	**Gravel**	**3/8**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**1 portland**
3	**15**	**4.5 ben**

Seal Method: **Unknown**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **61 ft.** below land surface on **2013-05-26** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Estimated** **Yield: 8 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **F&F Drilling**

301 Hwy 2921
DeLeon, TX 76444

Driller Name: **Jerry Fronterhouse**

License Number: **2317**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**1**	**top soil**
1	**10**	**caliche**
10	**16**	**clay**
16	**24**	**sandy clay**
24	**28**	**sand**
28	**53**	**clay**
53	**67**	**sand**
67	**75**	**clay and rock**
75	**85**	**sand and rock**
85	**100**	**clay and rock**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
5" new plastic casing 0/60
5" new plastic slotted 60/100 0.25

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STATE OF TEXAS WELL REPORT for Tracking #288758

Owner:	**Roy Tyce**	Owner Well #:	**1**
Address:	**2415 CR 336 Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 03' 30" N**
Well Location:	**2415 CR 336 Dublin, TX 76446**	Longitude:	**098° 21' 08" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **5/2/2012** Drilling End Date: **5/2/2012**

Borehole:

Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
7.875	0	20
7	20	120

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
18	120	Gravel	Torpedo

Annular Seal Data:

Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
0	18	6

Seal Method: **Mixed**

Sealed By: **Joe Riley and Justin Borchardt**

Distance to Property Line (ft.): **150**

Distance to Septic Field or other concentrated contamination (ft.): **none**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Ruler**

Surface Completion: **Surface Sleeve Installed**

Water Level: **18 ft.** below land surface on **No Data** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **105**

Well Tests: **Bailer** **Yield: 8 GPM with 15 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
28	Prairie

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Riley Drilling**

961 Mockingbird
Stephenville, TX 76401

Driller Name: **Joe Riley** License Number: **2196**

Apprentice Name: **Justin Borchardt** Apprentice Number: **57762**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	5	Top Soil
5	18	Sand Rock
18	46	Water Sand
46	89	Blue Sandy Shale
89	120	Limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4-N-PVC-Sch-40-0-18 Blank			
4-N-PVC-Sch-40-MFG Screen .020 18-80			
4-N- Pvc-Sch-40 -Blank -80-120			

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STATE OF TEXAS WELL REPORT for Tracking #255077

Owner:	**Hubert Reed**	Owner Well #:	**No Data**
Address:	**223 Trowbridge Dublin, TX**	Grid #:	**31-62-4**
Well Location:	**223 Trowbridge Dublin, TX**	Latitude:	**32° 04' 50" N**
		Longitude:	**098° 20' 46" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Start Date: **9/29/2006** Drilling End Date: **9/29/2006**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**20**
6.75	**20**	**98**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
20	**98**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**10**	**3 Port. Cement**
10	**20**	**1 EZ Seal**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **100**

Distance to Septic Field or other concentrated contamination (ft.): **50**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **40 ft.** below land surface on **2006-09-29** Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Submersible** Pump Depth (ft.): **60**

Well Tests: **Jetted** **Yield: 20 GPM after 24 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
25-85	Paluxy

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Associated Services**

P. O. Box 16
Stephenville, TX 76401

Driller Name: **Gary Aardal** License Number: **2404**

Comments: **$dfs**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	25	Tan and Gray Sandy Clay
25	70	Sand,Tan & Gray Sandy Clay,Sandstne
70	85	Sand,Gray Sandy Clay,Coal
85	98	Gray Clay,Blue Clay,Shale,Limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Blank PVC	0 58 Sch40
4	New	0.020" PVC Screen	58 98 Sch40

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STATE OF TEXAS WELL REPORT for Tracking #254873

Owner:	**David Faries**	Owner Well #:	**No Data**
Address:	**340 S. Camden Dublin, TX**	Grid #:	**31-62-4**
Well Location:	**340 S. Camden Dublin, TX**	Latitude:	**32° 04' 51" N**
		Longitude:	**098° 20' 31" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **11/20/2006** Drilling End Date: **11/20/2006**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**20**
6.75	**20**	**98**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
10	**98**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**10**	**3 Port. Cement**

Seal Method: **Pumped**

Sealed By: **Driller**

Distance to Property Line (ft.): **30**

Distance to Septic Field or other concentrated contamination (ft.): **60**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **10 ft.** below land surface on **2006-11-20** Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Submersible** Pump Depth (ft.): **80**

Well Tests: **Jetted** **Yield: 15 GPM after 24 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
10-60	Paluxy

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Associated Services**

P. O. Box 16
Stephenville, TX 76401

Driller Name: **Gary Aardal** License Number: **2404**

Comments: **$dfs**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Top Soil
1	10	Brown and Tan Clay
10	45	Tan Sandy Clay,Sand,Sandstone
45	65	Blue Sandy Clay,Gray Sand Clay,Sand
65	98	Gray Clay,Shale,Limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Blank PVC	0 18 Sch40
4	New	0.020" PVC Screen	18 98 Sch40

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STATE OF TEXAS WELL REPORT for Tracking #230132

Owner:	**Juan Rodriguez**	Owner Well #:	**No Data**
Address:	**1665 S FM 219 Dublin, TX 76446**	Grid #:	**31-62-5**
		Latitude:	**32° 03' 40" N**
Well Location:	**1665 S FM 219 Dublin, TX 76446**	Longitude:	**098° 19' 14" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/16/2010** Drilling End Date: **9/16/2010**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7	**0**	**135**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
50	**135**	**Gravel**	**.25"**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**1 cement**
3	**50**	**2 bentonite**

Seal Method: **pour**

Sealed By: **Driller**

Distance to Property Line (ft.): **60**

Distance to Septic Field or other concentrated contamination (ft.): **105**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **owner**

Surface Completion: **Surface Sleeve Installed**

Water Level: **85 ft.** below land surface, and **0 GPM** artesian flow on **2010-09-16** Measurement Method: **Unknown**

Packers: **none**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 20 GPM with 40 ft. drawdown after .5 hours**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
na		

Water Quality:

Strata Depth (ft.)	Water Type
112	fresh

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

PO Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Comments: **Jarrell Dowell contractor**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	2	brown sandy clay
2	23	caliche
23	64	grey shale and limestone
64	78	sand and sandstone
78	80	brown sand
80	102	light grey shale and clay
102	112	sandy blue clay
112	135	grey limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4 N PVC screen 115 to 135 sch 40
4 N PVC blank 0 to 115 sch 40

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STATE OF TEXAS WELL REPORT for Tracking #169751

Owner:	**Medina, Sammul**	Owner Well #:	**Well Log 2025**
Address:	**1789 CR 353 Dublin, TX 76446**	Grid #:	**31-62-5**
		Latitude:	**32° 04' 03" N**
Well Location:	**Off CR 304 Dublin, TX**	Longitude:	**098° 19' 13" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **6/22/2007** Drilling End Date: **6/22/2007**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**138**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
50	**138**	**Gravel**	**12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**6**	**3 Portland Cem.**
6	**60**	**4 EZ Seal**

Seal Method: **Pumped**

Sealed By: **Assoicated Services**

Distance to Property Line (ft.): **80**

Distance to Septic Field or other concentrated contamination (ft.): **100**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Customer Verified**

Surface Completion: **Surface Sleeve Installed**

Water Level: **70 ft.** below land surface on **2007-06-22** Measurement Method: **Unknown**

Packers: **None**

Type of Pump: **Jet** Pump Depth (ft.): **137**

Well Tests: **Estimated** **Yield: 30 GPM after .01 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
41-121	Paluxy

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Associated Services**

PO Box 16
Stephenville, TX 76401

Driller Name: **Josh aardal** License Number: **55033**

Comments: **^EO**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	topsoil, rock
1	17	yellow clay, shale, caliche
17	41	gray clay, shale
41	82	sand, streaks of gray blue sandy clay
82	92	gray sandy clay
90	121	sand, coal
121	138	blue gray shle, limestone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4" New Blank PVC 0'-78' Sch 40
4" New 0.020" PVC Screen 78'-138' Sch 40

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STATE OF TEXAS WELL REPORT for Tracking #159876

Owner:	**Jerry Stephens**	Owner Well #:	**No Data**
Address:	**Rt 2 CR 388 Dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 04' 17" N**
Well Location:	**Rt 2 CR 388 Dublin, TX**	Longitude:	**098° 20' 58" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **4/6/2005** Drilling End Date: **4/8/2005**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
8.75	**0**	**110**
6.5	**110**	**378**

Drilling Method: **Air Rotary**

Borehole Completion: **Unknown**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**110**	**10 Portland**
0	**200**	**10 Portland**

Seal Method: **7 Gals water 94 lbs**

Sealed By: **Driller**

Distance to Property Line (ft.): **150+**

Distance to Septic Field or other concentrated contamination (ft.): **150+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Sight**

Surface Completion: **Surface Sleeve Installed**

Water Level: **322 ft.** below land surface on **2005-04-08** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **336**

Well Tests: **Bailer** **Yield: 15 GPM with 0 ft. drawdown after 2 hours**

Water Quality:

Strata Depth (ft.)	Water Type
39	Upper Trinity

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Riley Drilling**

1330 W. McNeil
Stephenville, TX 76401

Driller Name: **Joe Riley** License Number: **2196**

Comments: **$mew**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	16	Top Soil
16	57	Blue Shale
57	92	Water Sand
92	127	Blue Shale
127	276	Limestone
276	315	Blue Shale
315	327	Sand
327	341	Red Bed
341	378	Water Sand & Gravel

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
7	New	Steel	0 - 110 .188
4	New	PVC	0 - 378 Sh 40
4	New	Screen	318 - 378 .030

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STATE OF TEXAS WELL REPORT for Tracking #95250

Owner:	**tommas brown**	Owner Well #:	**No Data**
Address:	**3825 hwy 67-377 dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**701 cottonwood dublin, TX 76446**	Latitude:	**32° 04' 32" N**
		Longitude:	**098° 20' 23" W**
Well County:	**Erath**	Elevation:	**1436 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/28/2006** Drilling End Date: **9/28/2006**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
7.875	**0**	**60**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
15	**60**	**Gravel**	**3/8**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**3**	**1 portland**
3	**15**	**7 ben**

Seal Method: **Unknown**

Sealed By: **f&f drilling**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **15 ft.** below land surface on **2006-09-28** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Estimated** **Yield: 50 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **f & f drilling**

301 hwy 2921
deleon, TX 76444

Driller Name: **jerry fronterhouse**

License Number: **2317**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**9**	**clay**
9	**50**	**sand**
50	**60**	**shale**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
5 new plastic casing 0 to 30
5 new plastic slotted 30 to 60 1/8

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STATE OF TEXAS WELL REPORT for Tracking #95249

Owner:	**mike williams**	Owner Well #:	**No Data**
Address:	**p o box 103 dublin, TX 76446**	Grid #:	**31-62-4**
		Latitude:	**32° 04' 47" N**
Well Location:	**515 myrtle dublin, TX 76446**	Longitude:	**098° 20' 18" W**
Well County:	**Erath**	Elevation:	**1441 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **9/27/2006** Drilling End Date: **9/27/2006**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	**7.875**	**0**	**100**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	**15**	**100**	**Gravel**	**3/8**

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	**0**	**3**	**1 portland**
	3	**15**	**4 ben**

Seal Method: **Unknown**

Sealed By: **f&f drilling**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **36 ft.** below land surface on **2006-09-27** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Estimated** **Yield: 25 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **f & f drilling**

301 hwy 2921
deleon, TX 76444

Driller Name: **jerry fronterhouse**

License Number: **2317**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**caleache**
3	**17**	**clay**
17	**31**	**sand**
31	**34**	**clay**
34	**85**	**sand and rock**
85	**100**	**shale**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
5 new plastic casing 0 to 70
5 new plastic slotted 70 to 100 1/8

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STATE OF TEXAS WELL REPORT for Tracking #91751

Owner:	**Otis Harvy**	Owner Well #:	**mw8**
Address:	**522 Pattrick Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**417 S. pattrick Dubiln, TX 76446**	Latitude:	**32° 04' 48" N**
		Longitude:	**098° 20' 38" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **8/16/2006** Drilling End Date: **8/16/2006**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**20**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **16/30 silica**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**1**	**1 cement**
1	**2**	**1 bentonite**

Seal Method: **Gravity**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **W.E.S.T. Drilling**

101 Industrial
Waxahachie, TX 75165

Driller Name: **Tom McCullough** License Number: **4806**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	5	Dk Br Cl
5	15	tn br sa cl
15	20	Lt. gr lightly cemented sa

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
2	n	PVC	Screen 20/2.5 .010
2	n	PVC	Riser 2.5/0 Sch40

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STATE OF TEXAS WELL REPORT for Tracking #83461

Owner:	**MIKE SUMMERS**	Owner Well #:	**No Data**
Address:	**368 PR 1363 DUBLIN, TX 76446**	Grid #:	**31-62-4**
Well Location:	**No Data**	Latitude:	**32° 03' 17" N**
		Longitude:	**098° 21' 13" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **3/22/2006** Drilling End Date: **3/22/2006**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**7.875**	**0**	**400**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**300**	**400**	**Gravel**	

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**100**	**25**
	290	**300**	**2**

Seal Method: **CONVENTIONAL**

Sealed By: **COMPANY**

Distance to Property Line (ft.): **60**

Distance to Septic Field or other concentrated contamination (ft.): **72**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **MEASURED**

Surface Completion: **Surface Sleeve Installed**

Water Level: **300 ft.** below land surface on **2006-03-22** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Estimated** **Yield: 20 GPM with 5 ft. drawdown after .25 hours**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **BENNETT WATER WELL DRILLING, INC.**

7300 W. HWY 377
TOLAR, TX 76476

Driller Name: **JEFF BENNETT** License Number: **4805**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	4	CLAY
4	25	LIME
25	85	SHALE
85	200	LIME
200	260	SHALE
260	300	LIME
300	390	SAND TAN
390	400	CLAY RED

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	NEW	PLASTIC	0 - 360
4	NEW	SCREEN	360 - 400 .020

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STATE OF TEXAS WELL REPORT for Tracking #57175

Owner:	**GoCo Marketing, Inc.**	Owner Well #:	**MW 7**
Address:	**1150 Estates Dr. - Ste. A Abilene, TX 79602**	Grid #:	**31-62-4**
		Latitude:	**32° 04' 59" N**
Well Location:	**518 Patrick Dublin, TX 76446**	Longitude:	**098° 20' 36" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **3/22/2005** Drilling End Date: **3/22/2005**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**14**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **silica sand 12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**2**	**1 cement**
2	**3**	**1 bentonite**
3	**14**	**5 silica sand**

Seal Method: **Gravity**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
7.5	groundwater

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **W.E.S.T Drilling**

101 Industrial
axahachie, TX 75165

Driller Name: **Ricardo Garcia** License Number: **54637**

Comments:

Amended 5/19/05 Ref#1542

Report Amended on by Request #1542

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	14	sand gravel

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
2	new	pvc	riser 0-4 sch 40
2	new	pvc	screen 4-14 .010

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STATE OF TEXAS WELL REPORT for Tracking #52753

Owner:	**City of Dublin**	Owner Well #:	**SB15 thru SB24**
Address:	**200 south Patrick Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**200 South patrick Dublin, TX 76446**	Latitude:	**32° 04' 00" N**
		Longitude:	**098° 20' 00" W**
Well County:	**Erath**	Elevation:	**No Data**
		****Plugged Within 48 Hours****	

****This well has been plugged**** Plugging Report Tracking #110969

Type of Work: **New Well** Proposed Use: **Environmental Soil Boring**

Drilling Start Date: **2/3/2005** Drilling End Date: **2/3/2005**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**2**	**0**	**15**

Drilling Method: **Direct Push**

Borehole Completion: **Open Hole**

Annular Seal Data: **No Data**

Seal Method: **Not Applicable**

Sealed By: **Unknown**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Unknown**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
.5 sacks bentonite chip per boring		

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **ESN - South**

14493 SPID
Corpus Christi, TX 78418

Driller Name: **Brad Orban** License Number: **55014**

Comments:

SB15 = 15 FEET
SB16 = 15 FEET
SB17 = 15 FEET
SB18 = 15 FEET
SB19 = 15 FEET
SB20 = 15 FEET
SB21 = 15 FEET
SB22 = 15 FEET
SB23 = 15 FEET
SB24 = 15 FEET

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 feet to 12 feet = brown clay
12 feet to 15 feet = tan sand

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
No Data

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STATE OF TEXAS WELL REPORT for Tracking #40300

Owner:	**Beukeboom Dairy**	Owner Well #:	**No Data**
Address:	**3541 CR 356 Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**3541 CR 356 Dublin, TX 76446**	Latitude:	**32° 03' 01" N**
		Longitude:	**098° 21' 16" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **7/30/2003** Drilling End Date: **7/30/2003**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**6.5**	**0**	**440**

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Filter Material*	*Size*
Filter Pack Intervals:	**300**	**440**	**Gravel**	

	Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
Annular Seal Data:	**0**	**300**	**36 cement**

Seal Method: **Pressure**

Sealed By: **Dowell**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **310 ft.** below land surface on **2003-07-30** Measurement Method: **Unknown**

Packers: **none**

Type of Pump: **Submersible**

Well Tests: **Pump** **Yield: 60 GPM**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **Dowell Well Service**

P. O. Box 402
Stephenville, TX 76401

Driller Name: **Mark Dowell** License Number: **1891**

Apprentice Name: **Justin Dowell**

Comments: **$dfs**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	35	Caliche
35	50	Gray Shale
50	80	Sand
80	260	Gray Shale
260	290	Sand
290	310	Red, Blue Clay
310	360	Sand and Gravel
360	400	Red Clay
400	440	Yellow Sandstone

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5	New	Sch80 PVC	0 440

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STATE OF TEXAS WELL REPORT for Tracking #34071

Owner:	**Otis Harvey**	Owner Well #:	**MW 3**
Address:	**522 Patrick St Dublin, TX 76446**	Grid #:	**31-62-4**
Well Location:	**518 Patrick Dublin, TX 76446**	Latitude:	**32° 04' 43" N**
		Longitude:	**098° 20' 42" W**
Well County:	**Erath**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Start Date: **2/26/2004** Drilling End Date: **2/26/2004**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**8.25**	**0**	**25**

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **silica sand 12/20**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**2**	**1 cement**
2	**3**	**1 bentonite**
3	**24.6**	**15 bentonite**

Seal Method: **Hand Mixed**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: **7.5 ft.** below land surface on **2004-02-26** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
7.5	groundwater

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled 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 report(s) being returned for completion and resubmittal.

Company Information: **W.E.S.T Drilling**

101 Industrial
Waxahachie, TX 75615

Driller Name: **Ricardo Garcia** License Number: **54637**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	10	clay tan
10	15	sand tan
15	25	sandstone grey

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	new	pvc	riser 0-4.6 sch 40
4	new	pvc	screen 4.6-24.6 .010

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #4

Affected Landowners, List and Agreement

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

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817.594.9880

info@jacobmartin.com
www.jacobmartin.com

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Abilene, TX 76906

1508 Santa Fe, Suite 203
Weatherford, TX 76086

LEASE AGREEMENT

This agreement is made and entered into this 25th day of August, 2014 and between Bar B/Graham Partners LLC, hereinafter referred to as "Lessor", and CITY OF DUBLIN, acting by and duly authorized Trustees, hereinafter referred to as "Lessee".

The parties hereto, for and in consideration of the rents, covenants and agreements contained herein, agree as follows:

1. PREMISES. Lessor does hereby demise and let unto Lessee, and Lessee does hereby hire and take from Lessor certain premises, more particularly described as follows, to-wit:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART THEROF FOR ALL PURPOSES.

2. TERM OF LEASE. The initial term of this lease shall be then(10) years, beginning on the signing date of this agreement, however, to a mutually agreed option to renew this lease for one (1) successive additional period of ten (10) years duration, and being under the same terms and conditions as that of the initial term thereof except as set forth in Paragraph 3 hereof. Lessee shall notify Lessor in writing of the Lessee's desire to exercise said option not less than one hundred eighty (180) days prior to the expiration of the initial ten (10) year lease.

3. RENT PROVISONS. Lessee shall pay to Lessor for the use and rental of said premises for the initial then (10) year term the total sum of TEN DOLLARS ($10.00), at which amount shall be paid to Lessor in a lump sum at date of execution of this Lease Agreement, the receipt of which is hereby acknowledged by Lessor. The rental of said premises during the one optional ten (10) year extension shall be the total sum of TEN DOLLARS ($10.00), which amount shall be paid to Lessor in a lump sum on or before the first date of such additional ten (10) year term.

4. USE AND PURPOSE OF LEASE. The purpose of this lease and the use of said demised premises are for land treatment processes, involving wastewaters, and/or the ultimate disposal of residues from wastewater treatment processes and all activities incident thereto. The land treatment process will involve irrigation of agricultural crops. The process for the ultimate disposal of residues shall be accomplished by means of spreading and /or injecting the sludge over the demised premises. The maximum application of a wastewater and /or sludge will be limited to an application rate commensurate with insuring that ground and surface water are protected from harmful contaminants. It is understood and agreed between the parties hereto that Lessee may, at its discretion, apply such amount or amounts of wastewater and/or sludge to the leased premises as needed In its land application regulations as set forth by the State of Texas and the United States Environmental Protection Agency at the date of execution of this lease and as the same may be amended during the full term of this lese. However, the Lessee will use its best efforts to apply wastewaters and/or sludge as such time and in such amounts as are most convenient for Lessor.

5. EASEMENTS. Lessor hereby grants to Lessee, and its employees; and all officials, employees, or representatives of the state government or the federal government involved in the project disposal of wastewater and sludge an easement right-of-way during the term of this lease and any extensions thereof, for the purpose of having an access to the leased premises.

6. RIGHT OF WAY. Lessor hereby also grants to Lessee, and its employees and all officials, employees and representatives of the state government of the federal government the right to enter into the leased premises at any time for the purpose of inspection, repair, maintenance, or any other activity incidental to the operation of said land application.

7. WAIVER OF RESTORATION. Lessor hereby expressly waives any right to have the leased premises restored to its original condition as at the beginning of the lease period, and hereby agrees to accept the conditions of premises as it is at the termination of the initial lease term of any extensions thereof.

8. MONITORING. Lessee shall conduct necessary groundwater and wastewater effluent and/or sludge monitoring as set forth by the State of Texas and the United States Environmental Protection Agency.

9. ASSURANCES. Lessee hereby provides assurance as to the quality and suitability of the wastewater and /or sludge for the intended agricultural use. Lessee shall also provide to Lessor continued assurances of wastewater and/or sludge quality through annual analysis as performed by a qualified testing laboratory.

10. APPLICATION RATE. Subject to state and federal regulation or guidance which limit the quantity of wastewater of sludge that can be applied to any l and during any period of time, the Lessor reserves the right to apply water or sludge as it sees fit; provided, however, The Lessor will use its best efforts to apply water at such time and in such amounts as are most convenient for the Lessee and the Lessee is encouraged to work with the Lessor to establish mutually agreeable application standards and rules. He Lessee ay use the equipment to apply chemicals or additional water to the land.

11. LIABILITY. The Lessee represents that it has no reason to believe that this project creates any special danger of liability for either the Lessee or the Lessor. In the event of a claim for liability is made and negligence and damage are proven, the party responsible for such negligence and resulting damage shall indemnify and hold the other party harmless from any such damages. Each party should, at their own expense, maintain adequate insurance to protect themselves fr4om any such potential liability. Each party will use their best efforts to conduct themselves so as not to create a situation resulting in damage to any project participation of any third party.

12. TERMINATION OF LEASE. This lese may not be terminated during the initial term of any extension thereof except by the written consent of both parties hereto. In the event of premature lease termination of Lessor for any reason, Lessor shall provide Lessee with an option to purchase said leased premises at6 a mutually agreeable price. If a purchase agreement cannot be negotiated, Lessor shall pay Lessee as damages the difference between the total costs of treatment facilities changes resulting from such premature termination, and the costs which would result to the Lessee for facilities changes resulting from the normal expiration of this lease, plus any damage for losses and costs incidental to the disruption of wastewater treatment process caused by such termination of leasehold

13. RIGHT TO CROPS, RIGHT TO LEASE TO THIRD PARTY. It is understood by the partie3s thereto, that this lese covers only the right to dispose of wastewater and sludge on the leased premises, in whatever manner deemed most advantageous to Lessee, and that Lessor retains the right to farm the premises and to receive all crops produced on and any other income received from the leased premises, provided such farming activities do not conflict or interfere with Lessee's use of the premises. Lessor shall have the right to lease the premises to another third party for use in such farming activities, provided such farming activities do not conflict or interfere with Lessee's use of the premises and further provided reservation.

14. EQUIPMENT AND INSURANCE. Lessor hereby approves the installation of certain equipment upon the premises at the expense of Lessee, such equipment being used by Lessee agrees to keep such equipment insured at its own expe3nse. It is further agreed ty the parties hereto that Lessee may remove, repair or replace said equipment without the prior consent of Lessor, and with no liability to Lessor.

15. CONVENANTS BY LESSOR. Notwithstanding anything to the contrary herein contained it is covenant, stipulated and agreed by Lessor as follows: (1) no food crops, or crops grown for human consumption shall be grown on the lese premises during the term of this lease or any extension thereof. (2) That Lessor shall use all effluent as required b y Lessee on the leased premises. (3) That Lessor shall allow no run off of any effluent as requited by Lessee on the leased premises.

16. COVENANTS BY LESSEE. Lessee covenants, stipulates and agrees that it shall be responsible for the treatment plant, the working order of the plant, and the quality of the effluent placed upon the leased premises.

17. AGREEMENTS AND COVENANTS TO RUN WITH LAND. Notwithstanding anything to the contrary herein contained, this lease agreement, and the covenants and agreements shall run with the land.

18. REQUIRED TESTS. Lessee shall be responsible for any and all tests concerning the above described tract of land that may be required by the State of Texas or the Environmental Protection Agency, or agencies thereof.

19. BINDING EFFECT. The covenants and conditions herein contained shall apply to and bind the heirs, personal ere3presentatives, successors and assigns of the parties hereto.

20. ENTIRE AGREEMENT. This lease contains the entire agreement between the parties hereto, and cannot be changed or terminated except by a written instrument executed by all of the parties hereto.

21. COUNTERPARTS. This agreement may be executed in one or more counterparts, each of which shall be deemed to be an original, and the same instrument which may sufficiently be evidenced by one counterpart.

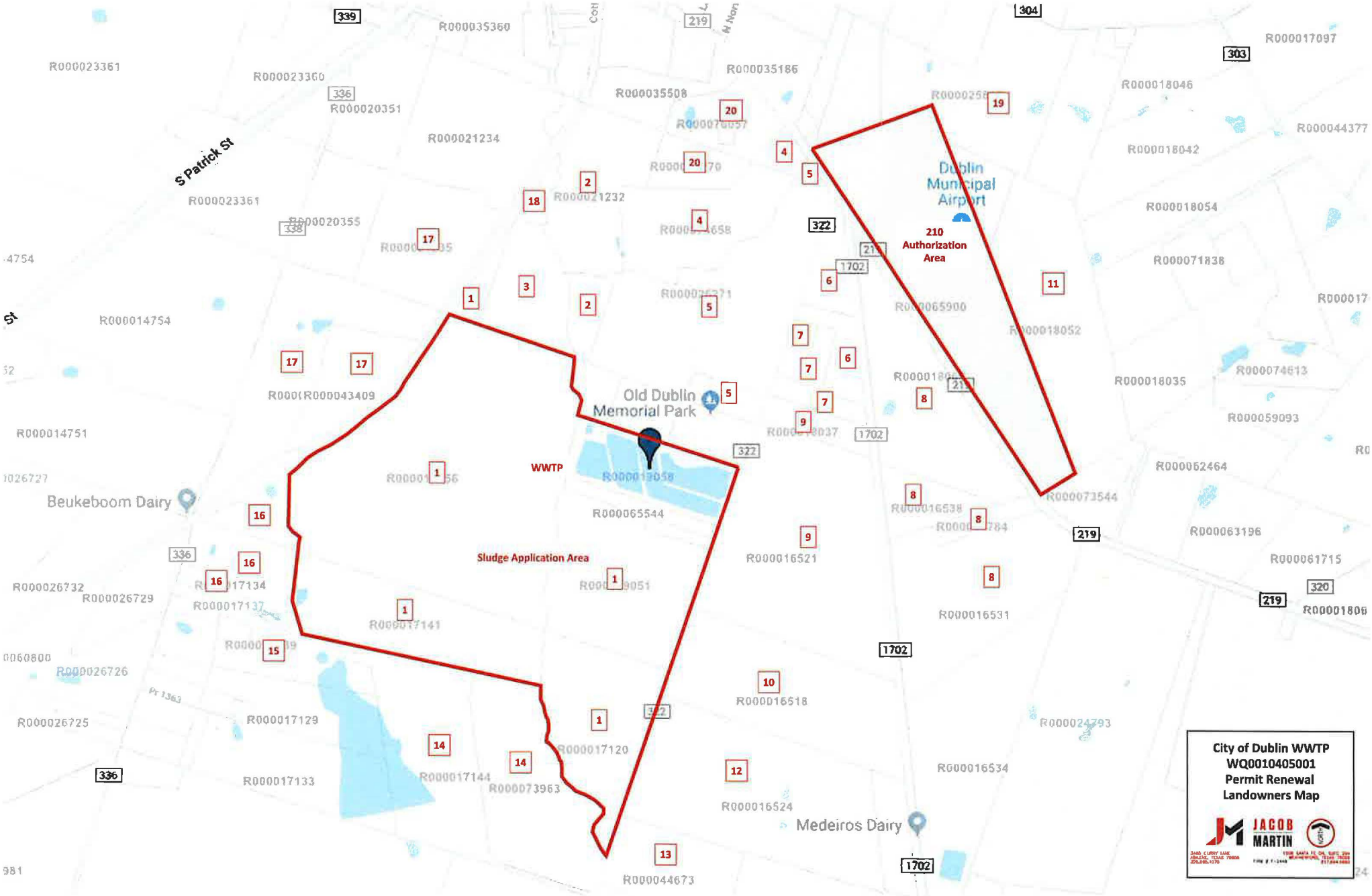
22. GOVERNING LAW. This agreement and the rights of the parties shall be governed by and construed and enforced in accordance with the laws of the State of Texas.

IN WITNESS WHEREOF the parties hereto have executed this Lease Agreement the 25th day of August, 2014.

David Leatherwood, Mayor

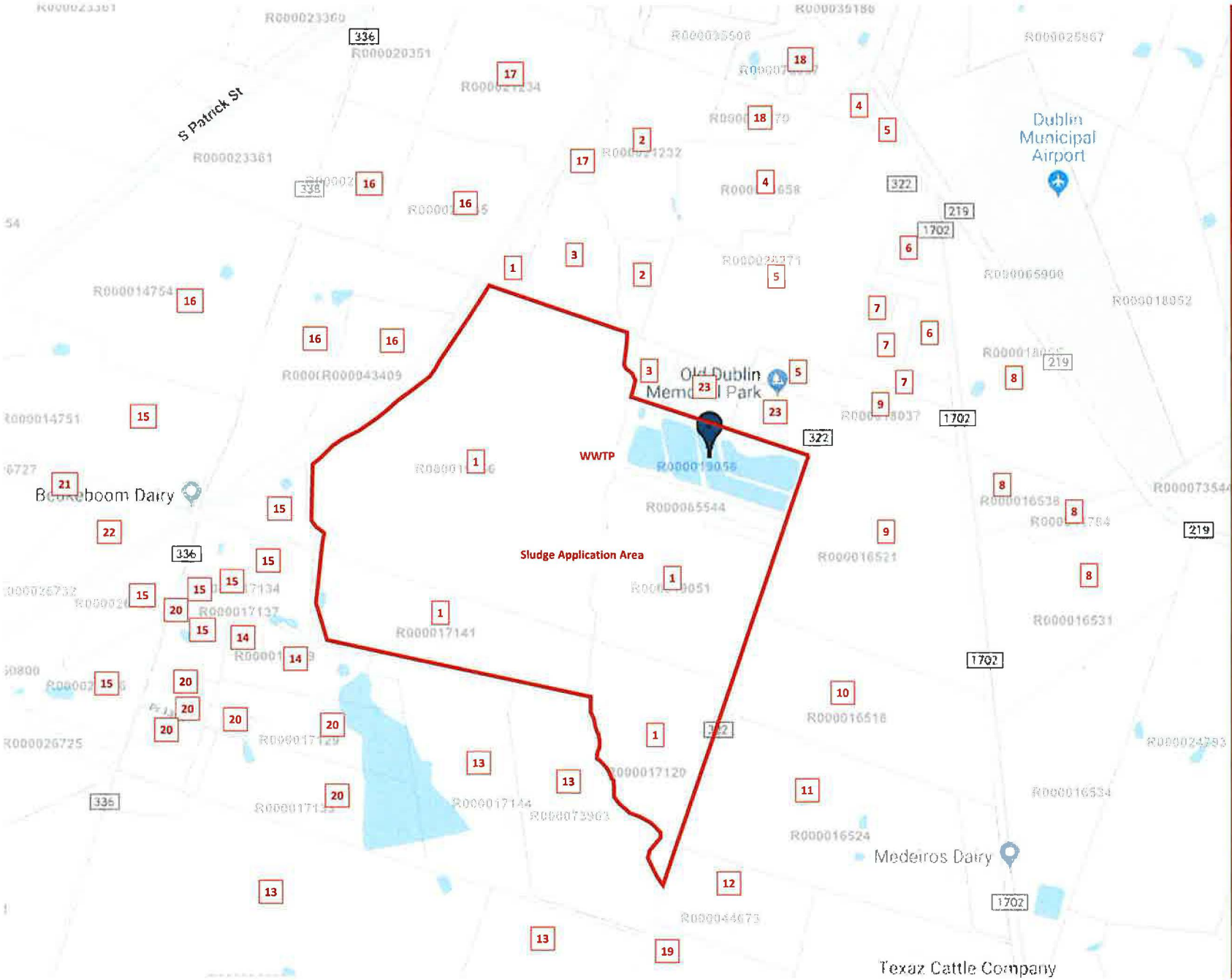
City of Dublin

Roy Graham "Lessor"



City of Dublin WWTP
WQ0010405001
Permit Renewal
Landowners Map

JACOB MARTIN

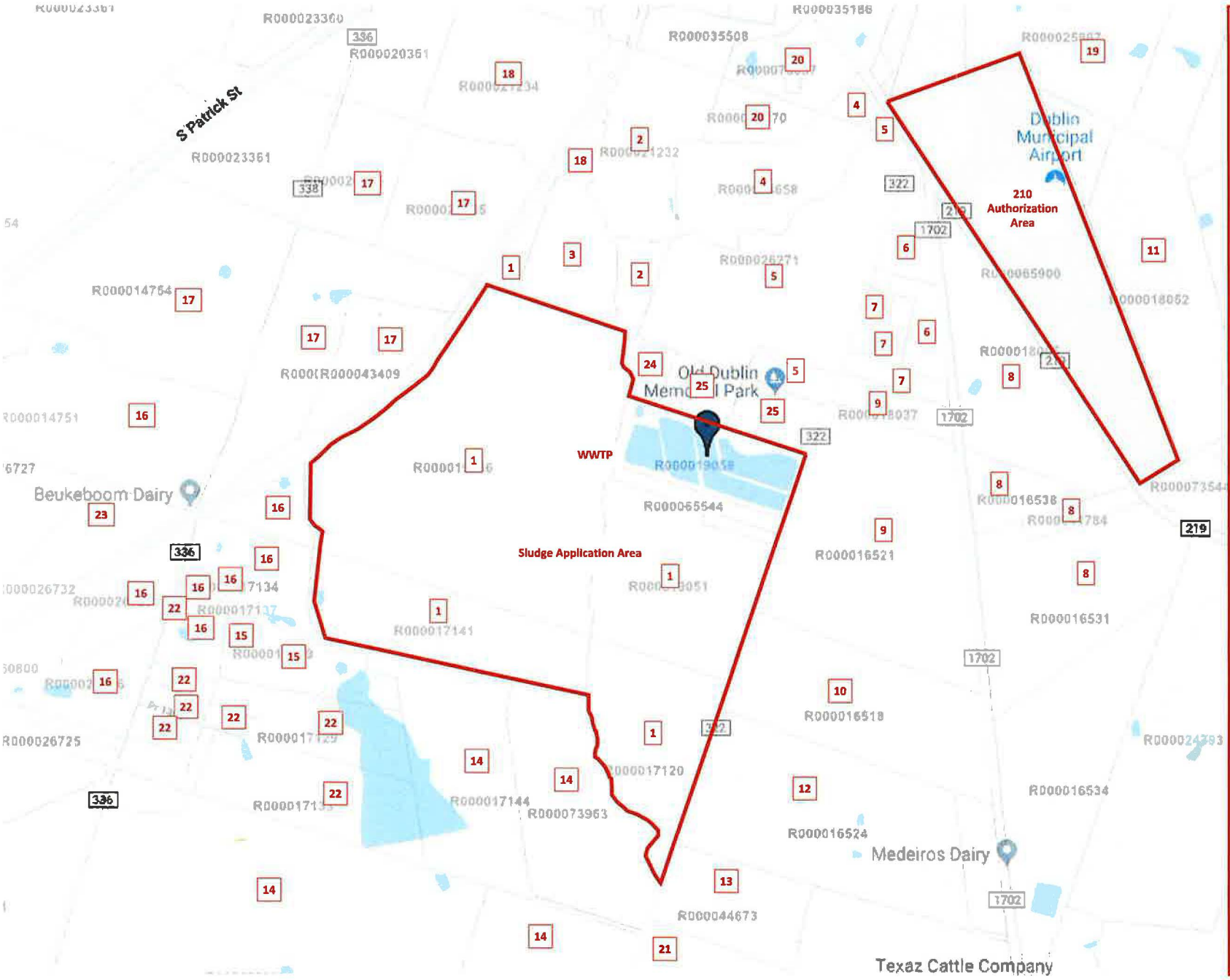


1. Bar B/ Graham Partners LLC
   1292 CR498 Stephenville, TX 76401
2. Paul Bradberry
   621 S Patrick Dublin, TX 76446
3. Rebecca Prince
   PO Box 384 Dublin, TX 76446
4. Ronnie and Melanie Belew
   6527 CR 397 Dublin, TX 76446
5. Lonlee and Janey Laquey
   120 CR322 Dublin, TX 76446
6. Bradberry Living Trust, Charlie Nix Bradberry and Susan Co-Trustees
   1040 N Post Oak, Dublin, TX 76446
7. Stephen Barbee
   669 CR322 Dublin, TX 76446
8. Rodney Mcneal
   405 PR 1375 Dublin, TX 76446
9. Dublin Auction Sale
   434 Edward Dr Dublin, TX 76446
10. Alan and John Austin
    1503 Tulip Dr Arlington, TX 76013
11. John Batla
    PO Box 901 Columbus, TX 78934
12. Christy Tyler and David Segit
    2875 CR 322 Dublin, TX 76446
13. Frans Beukeboom
    1021 PR1369 Dublin, TX 76446
14. Roy Tyus
    2415 CR336 Dublin, TX 76446
15. Paul Tyus
    PO Box 182 Paluxy, TX 76467
16. David Fritts
    PO Box 11 Dublin, TX 76446
17. Alynn Nance
    625 SW US377 Dublin, TX 76446
18. Melvin and Jaquelyn Mcmullen
    1001 S Liberty Dublin, TX 76446
19. David Quenzer Living Trust, James Bryan Fields
    3501 CR322 Dublin, TX 76446
20. Joyce Swindle
    3408 Hardeman Fort Worth, TX 76119
21. Lou Ann Huckaby
    15672 S US377 Dublin, TX 76446
22. J & C Bachus Family Trust
    PO Box 552 Stephenville, TX 76401
23. Old Dublin Memorial Park Cemetery
    PO Box 123 Dublin, TX 76446

0.25 mi

City of Dublin WWTP
WQ0010405001
Permit Renewal
Landowners Map

JACOB MARTIN



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    625 SW US377 Dublin, TX 76446
19. Michael Harris
    1554 CR304 Dublin, TX 76446
20. Melvin and Jaquelyn Mcmullen
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21. David Quenzer Living Trust, James Bryan Fields
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23. Lou Ann Huckaby
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24. Rebecca Nan Prince
    PO Box 384 Dublin, TX 76446
25. Old Dublin Memorial Park Cemetery
    PO Box 123 Dublin, TX 76446

0.25 mi

City of Dublin WWTP
WQ0010405001
Permit Renewal
Landowners Map

JACOB MARTIN

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #5

Flow Diagram

Prepared By:

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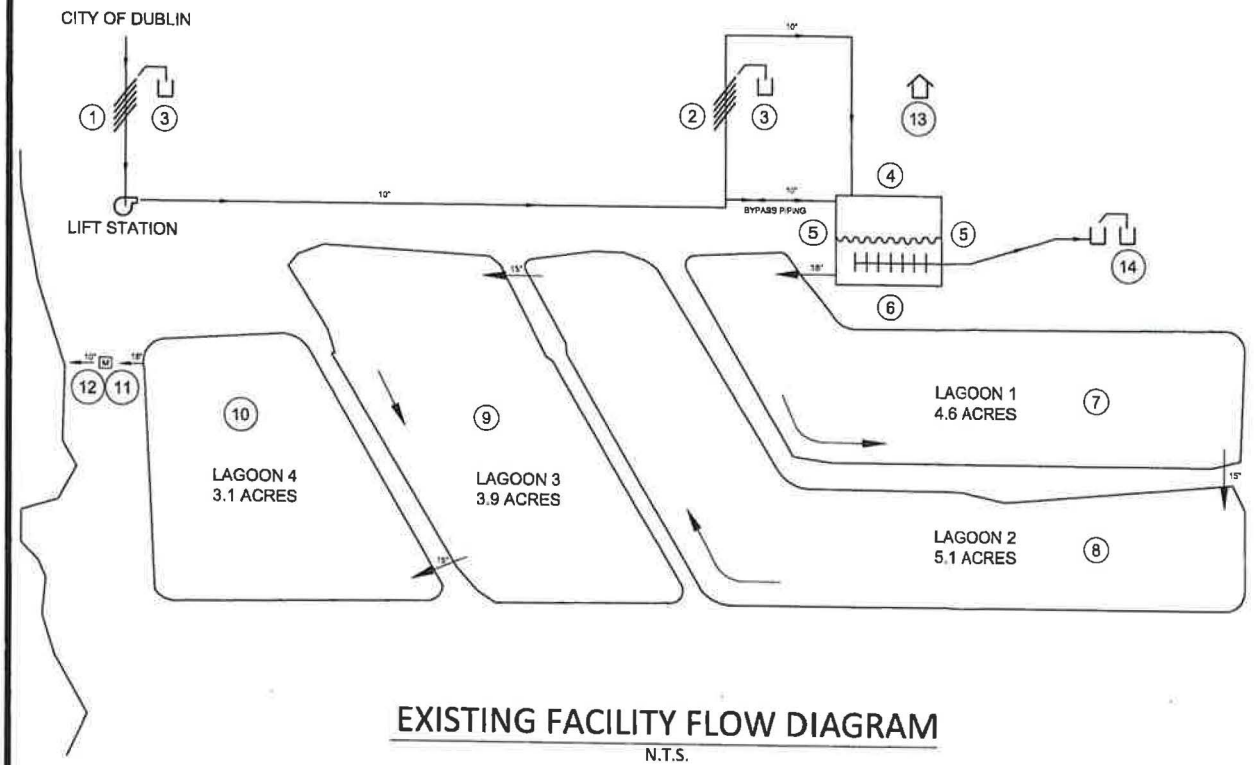

EXISTING FACILITY FLOW DIAGRAM

N.T.S.

LEGEND

- FLOW DIRECTION
- PUMP
- VAVLE
- (1) BAR RACK
- (2) MECHANICAL INFLUENT SCREEN
- (3) SCREENINGS TO LANDFILL
- (4) AERATED BASIN
- (5) FLOATING AERATORS AND BAFFLE
- (6) SLUDGE REMOVAL AND DEWATERING
- (7) LAGOON 1 - APPROX. 4.6 ACRES
- (8) LAGOON 2 - APPROX. 5.1 ACRES
- (9) LAGOON 3 - APPROX. 3.9 ACRES
- (10) LAGOON 4 - APPROX. 3.1 ACRES
- (11) EFFULENT METER
- (12) OUTFALL TO RECEIVING WATERS (RESLEY CREEK)
- (13) MOTOR CONTROL CENTER/SCADA BLDG.
- (14) SLUDGE TO LANDFILL

JACOB | MARTIN
FIRM# - F2448

CITY OF DUBLIN
ERATH COUNTY, TEXAS
FEBRUARY 2019

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #6

Site Drawings

Prepared By:

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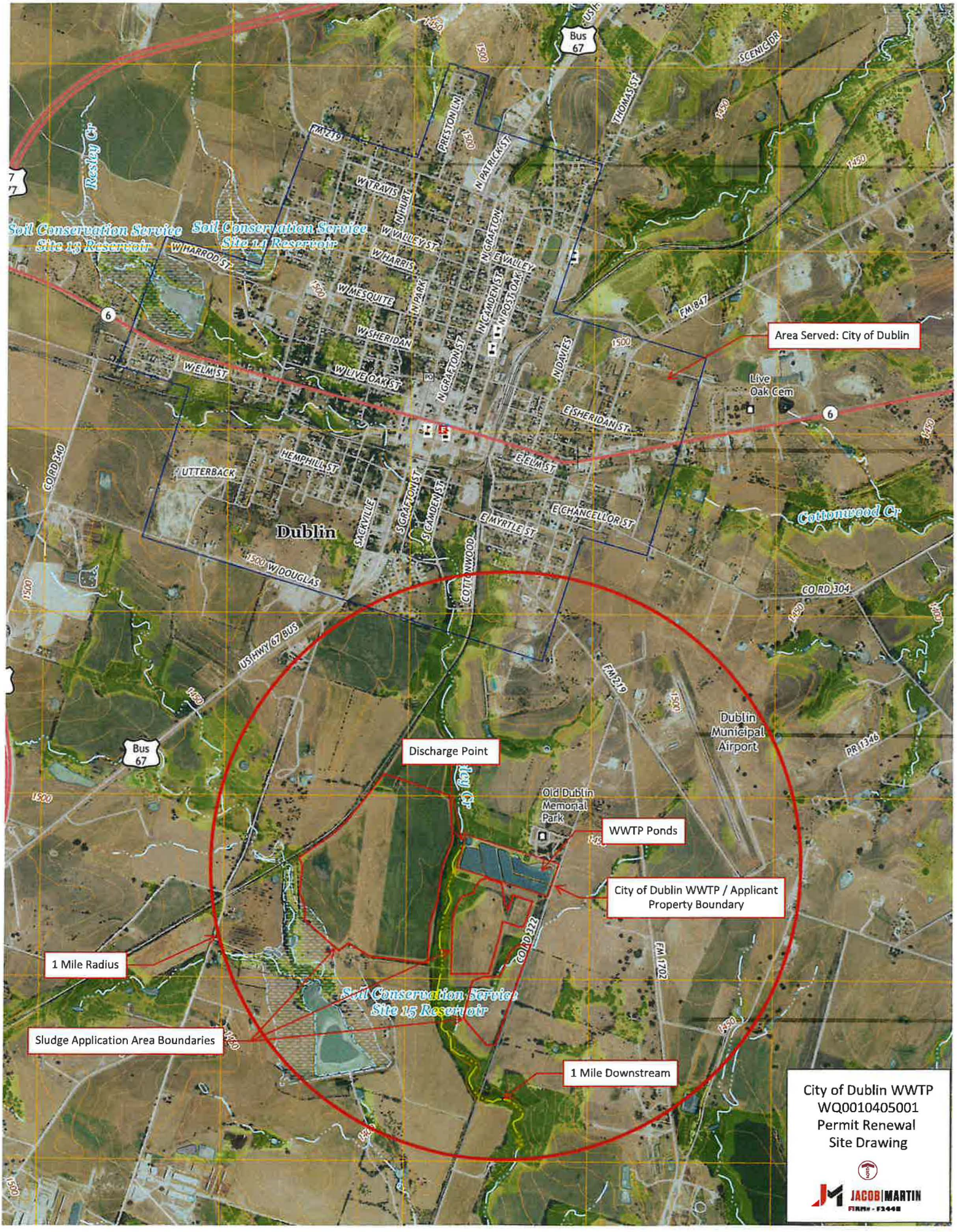

City of Dublin WWTP
WQ0010405001
Permit Renewal
Site Drawing

JACOB|MARTIN
FIRM# - F2448

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #7

Pollutant Analysis: Soil and Sludge Laboratory Analysis

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City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

ATTACHMENT #8

General Highway Map

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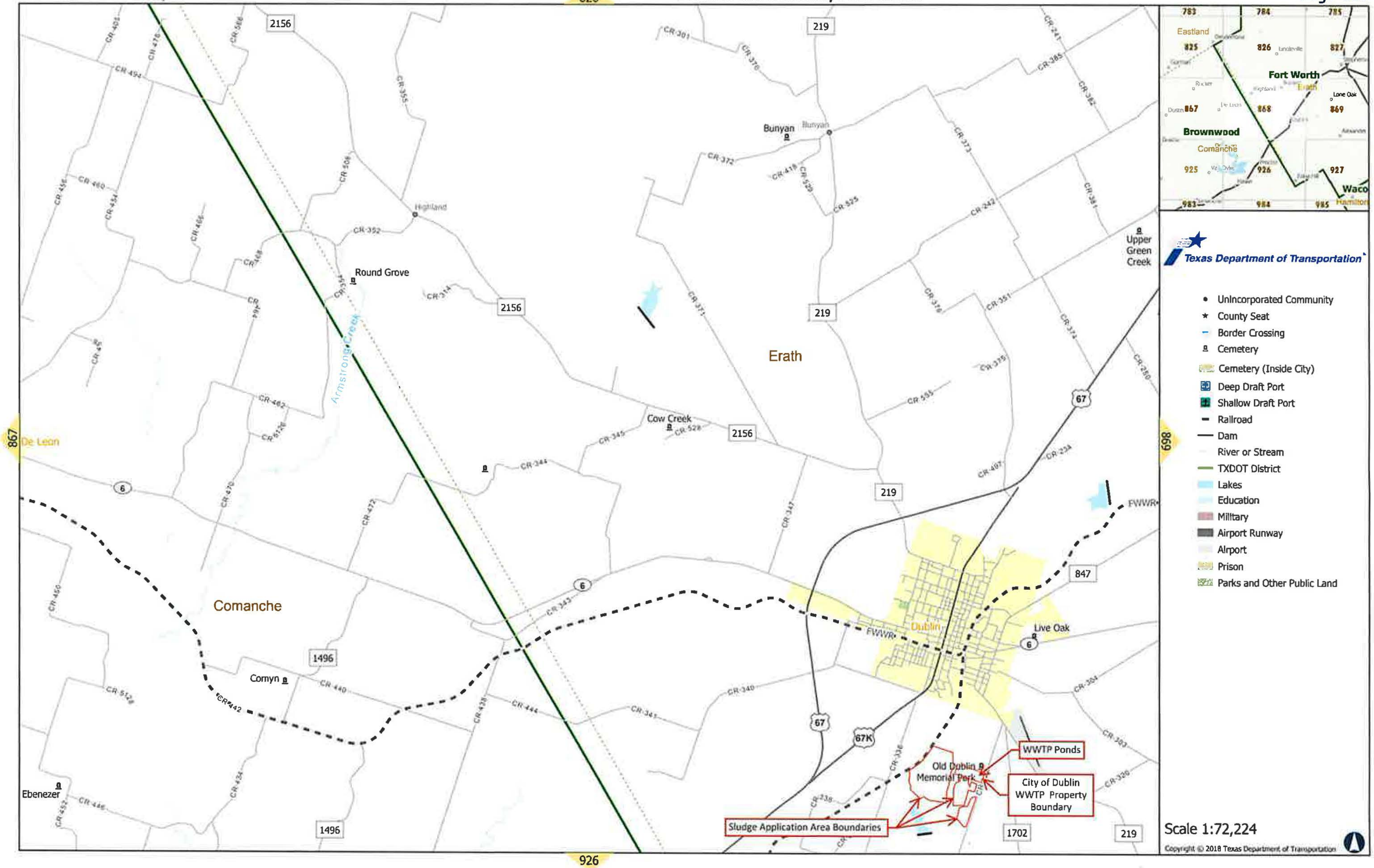
Counties: **Comanche, Erath** Districts: **Brownwood, Fort Worth** **Page 868**



City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

Attachment #9

USDA NRCS Soil Map

Prepared By:

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Erath County, Texas

February 18, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

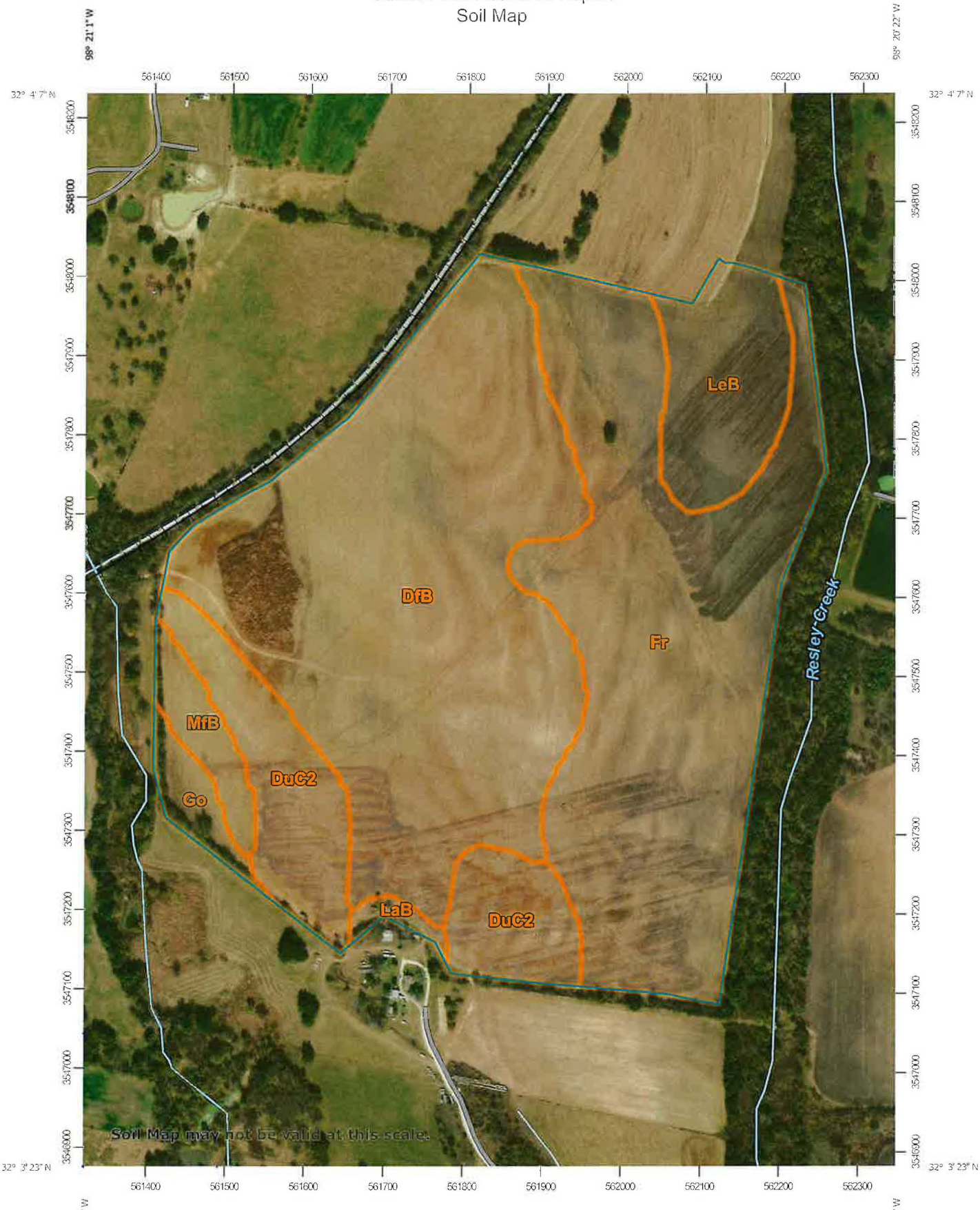
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Map Scale: 1:6,610 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erath County, Texas
Survey Area Data: Version 15, Sep 14, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2015—Dec 13, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DfB	Duffau fine sandy loam, 1 to 3 percent slopes	61.0	41.8%
DuC2	Duffau fine sandy loam, 1 to 5 percent slopes, eroded	16.2	11.1%
Fr	Frio clay loam, occasionally flooded	51.0	35.0%
Go	Gowen clay loam, occasionally flooded	2.7	1.8%
LaB	Topsey loam, 1 to 3 percent slopes	0.9	0.6%
LeB	Lewisville clay loam, 1 to 3 percent slopes	10.5	7.2%
MfB	May fine sandy loam, 1 to 3 percent slopes	3.5	2.4%
Totals for Area of Interest		**145.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Erath County, Texas

DfB—Duffau fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tc23
Elevation: 620 to 1,550 feet
Mean annual precipitation: 29 to 38 inches
Mean annual air temperature: 64 to 66 degrees F
Frost-free period: 220 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Duffau and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Duffau

Setting

Landform: Ridges
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and/or loamy residuum weathered from sandstone and/or claystone

Typical profile

A - 0 to 12 inches: fine sandy loam
Bt - 12 to 64 inches: sandy clay loam
C - 64 to 80 inches: fine sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 3 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Minor Components

Windthorst

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Tight Sandy Loam 29-33" PZ (R084BY175TX)
Hydric soil rating: No

Selden

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Loamy Sand 29-33" PZ (R084BY171TX)
Hydric soil rating: No

DuC2—Duffau fine sandy loam, 1 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2tc24
Elevation: 650 to 1,540 feet
Mean annual precipitation: 29 to 38 inches
Mean annual air temperature: 63 to 66 degrees F
Frost-free period: 220 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Duffau, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Duffau, Eroded

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and/or loamy residuum weathered from sandstone and/or claystone

Typical profile

A - 0 to 5 inches: fine sandy loam

Bt - 5 to 70 inches: sandy clay loam
BC - 70 to 80 inches: sandy clay loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 3 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Minor Components

Windthorst

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Tight Sandy Loam 29-33" PZ (R084BY175TX)
Hydric soil rating: No

Selden

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Loamy Sand 29-33" PZ (R084BY171TX)
Hydric soil rating: No

Fr—Frio clay loam, occasionally flooded

Map Unit Setting

National map unit symbol: d866

Elevation: 400 to 1,700 feet
Mean annual precipitation: 25 to 36 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 220 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Frio and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Frio

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from limestone and shale

Typical profile

H1 - 0 to 40 inches: clay loam
H2 - 40 to 56 inches: silty clay
H3 - 56 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: Loamy Bottomland 30-38" PZ (R085XY181TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 18 percent
Hydric soil rating: No

Unnamed, hydric

Percent of map unit: 2 percent
Landform: Depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Go—Gowen clay loam, occasionally flooded

Map Unit Setting

National map unit symbol: d867
Elevation: 200 to 950 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 64 to 70 degrees F
Frost-free period: 230 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Gowen and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gowen

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 30 inches: clay loam
H2 - 30 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Ecological site: Loamy Bottomland 29-33" PZ (R084BY170TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 8 percent
Hydric soil rating: No

Unnamed, hydric

Percent of map unit: 2 percent
Landform: Depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

LaB—Topsey loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: d86f
Elevation: 1,100 to 1,500 feet
Mean annual precipitation: 28 to 34 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 220 to 245 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Topsey and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Topsey

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Loamy residuum weathered from shale and siltstone

Typical profile

H1 - 0 to 6 inches: loam
H2 - 6 to 18 inches: clay loam
H3 - 18 to 26 inches: gravelly clay loam
H4 - 26 to 36 inches: clay loam
H5 - 36 to 80 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to densic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 80 percent
Sodium adsorption ratio, maximum in profile: 3.0
Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: Loamy Slope 30-38" PZ (R085XY379TX)
Hydric soil rating: No

LeB—Lewisville clay loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wn9n
Elevation: 400 to 1,800 feet
Mean annual precipitation: 29 to 39 inches
Mean annual air temperature: 64 to 66 degrees F
Frost-free period: 230 to 245 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Lewisville and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lewisville

Setting

Landform: Stream terraces, hillslopes
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Linear
Across-slope shape: Linear, convex
Parent material: Calcareous loamy alluvium and/or slope alluvium derived from limestone and shale

Typical profile

Ap - 0 to 16 inches: clay loam
Bk - 16 to 42 inches: clay loam
BCk - 42 to 80 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 3.0
Available water storage in profile: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: Loamy Swale 30-38" PZ (R085XY479TX)
Hydric soil rating: No

Minor Components

Krum

Percent of map unit: 7 percent
Landform: Stream terraces, hillslopes
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, tread
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: Clayey Swale 30-38" PZ (R085XY279TX)
Hydric soil rating: No

Bosque

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Loamy Bottomland 30-38" PZ (R085XY181TX)
Hydric soil rating: No

MfB—May fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2wn8k
Elevation: 700 to 2,000 feet
Mean annual precipitation: 28 to 36 inches
Mean annual air temperature: 63 to 66 degrees F
Frost-free period: 210 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

May and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of May

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

A - 0 to 16 inches: fine sandy loam
Bt - 16 to 42 inches: sandy clay loam
BC - 42 to 50 inches: sandy clay loam
Ck - 50 to 80 inches: sandy clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Minor Components

Duffau

Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Cisco

Percent of map unit: 4 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear

Across-slope shape: Convex
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Unnamed, hydric

Percent of map unit: 1 percent
Landform: Depressions on stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear, concave
Across-slope shape: Linear, concave
Hydric soil rating: Yes

Bunyan

Percent of map unit: 1 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Loamy Bottomland 29-33" PZ (R084BY170TX)
Hydric soil rating: No

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Erath County, Texas

February 18, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Map Scale: 1:5,790 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erath County, Texas
Survey Area Data: Version 15, Sep 14, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2015—Dec 13, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Blanket clay loam, 1 to 3 percent slopes	11.6	14.6%
DuC2	Duffau fine sandy loam, 1 to 5 percent slopes, eroded	10.0	12.5%
Fr	Frio clay loam, occasionally flooded	15.3	19.2%
Go	Gowen clay loam, occasionally flooded	17.1	21.4%
WoB	Windthorst very fine sandy loam, 1 to 3 percent slopes	25.8	32.3%
Totals for Area of Interest		**79.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Erath County, Texas

BaB—Blanket clay loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tc1k
Elevation: 800 to 1,600 feet
Mean annual precipitation: 29 to 37 inches
Mean annual air temperature: 63 to 66 degrees F
Frost-free period: 220 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Blanket and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blanket

Setting

Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy slope alluvium and/or clayey slope alluvium

Typical profile

Ap - 0 to 14 inches: clay loam
Bt - 14 to 40 inches: clay loam
Bk - 40 to 56 inches: clay loam
BCk - 56 to 80 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 20 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: Clayey Swale 30-38" PZ (R085XY279TX)
Hydric soil rating: No

Minor Components

Bunyan

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Loamy Bottomland 29-33" PZ (R084BY170TX)
Hydric soil rating: No

May

Percent of map unit: 3 percent
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Windthorst

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Tight Sandy Loam 29-33" PZ (R084BY175TX)
Hydric soil rating: No

Thurber

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Claypan 26-33" PZ (R080BY147TX)
Hydric soil rating: No

DuC2—Duffau fine sandy loam, 1 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: 2tc24
Elevation: 650 to 1,540 feet
Mean annual precipitation: 29 to 38 inches
Mean annual air temperature: 63 to 66 degrees F
Frost-free period: 220 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Duffau, eroded, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Duffau, Eroded

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy and/or loamy residuum weathered from sandstone and/or claystone

Typical profile

A - 0 to 5 inches: fine sandy loam
Bt - 5 to 70 inches: sandy clay loam
BC - 70 to 80 inches: sandy clay loam

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 3 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Minor Components

Windthorst

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Tight Sandy Loam 29-33" PZ (R084BY175TX)
Hydric soil rating: No

Selden

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Loamy Sand 29-33" PZ (R084BY171TX)
Hydric soil rating: No

Fr—Frio clay loam, occasionally flooded

Map Unit Setting

National map unit symbol: d866
Elevation: 400 to 1,700 feet
Mean annual precipitation: 25 to 36 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 220 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Frio and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Frio

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from limestone and shale

Typical profile

H1 - 0 to 40 inches: clay loam
H2 - 40 to 56 inches: silty clay
H3 - 56 to 80 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: Loamy Bottomland 30-38" PZ (R085XY181TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 18 percent
Hydric soil rating: No

Unnamed, hydric

Percent of map unit: 2 percent
Landform: Depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Go—Gowen clay loam, occasionally flooded

Map Unit Setting

National map unit symbol: d867
Elevation: 200 to 950 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 64 to 70 degrees F
Frost-free period: 230 to 270 days
Farmland classification: Not prime farmland

Map Unit Composition

Gowen and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gowen

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 30 inches: clay loam
H2 - 30 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Gypsum, maximum in profile: 2 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Ecological site: Loamy Bottomland 29-33" PZ (R084BY170TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 8 percent
Hydric soil rating: No

Unnamed, hydric

Percent of map unit: 2 percent
Landform: Depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

WoB—Windthorst very fine sandy loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tc3q
Elevation: 650 to 1,250 feet
Mean annual precipitation: 29 to 40 inches
Mean annual air temperature: 62 to 66 degrees F
Frost-free period: 210 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Windthorst and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Windthorst

Setting

Landform: Ridges

Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy and/or clayey residuum weathered from sandstone and shale

Typical profile

A - 0 to 10 inches: very fine sandy loam
Bt1 - 10 to 38 inches: sandy clay
Bt2 - 38 to 50 inches: sandy clay
C - 50 to 80 inches: sandy clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 8.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: Tight Sandy Loam 29-33" PZ (R084BY175TX)
Hydric soil rating: No

Minor Components

Duffau

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Sandy Loam 29-33" PZ (R084BY174TX)
Hydric soil rating: No

Chaney

Percent of map unit: 2 percent
Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: Loamy Sand 29-33" PZ (R084BY171TX)
Hydric soil rating: No

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Erath County, Texas

February 18, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

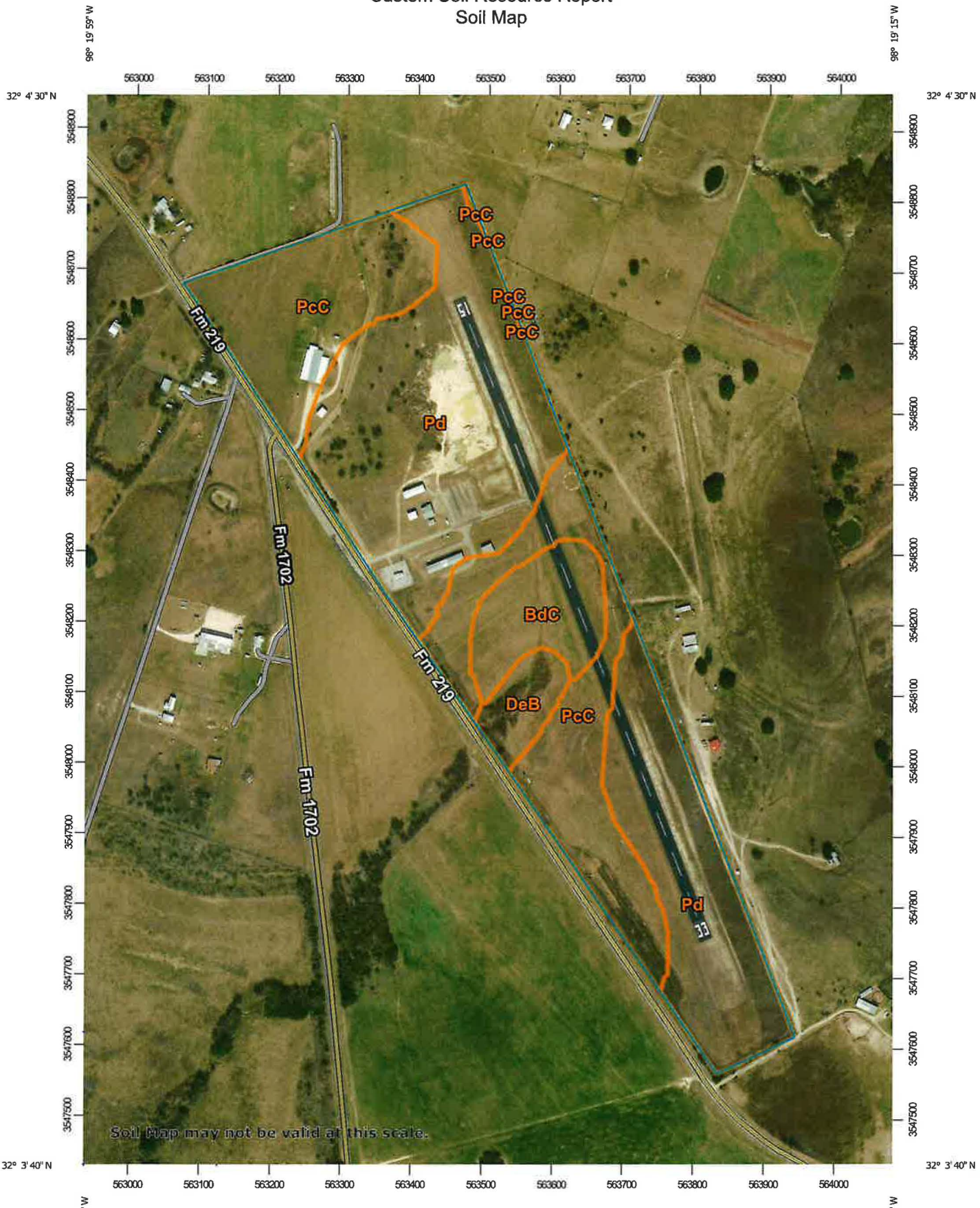
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:7,400 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erath County, Texas
Survey Area Data: Version 15, Sep 14, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2015—Dec 13, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BdC	Bolar-Denton complex 3 to 5 percent slopes	7.0	7.8%
DeB	Denton silty clay, 1 to 3 percent slopes	3.1	3.5%
PcC	Purves clay, 3 to 5 percent slopes	30.6	34.0%
Pd	Purves-Dugout complex	49.2	54.7%
Totals for Area of Interest		**89.9**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Erath County, Texas

BdC—Bolar-Denton complex 3 to 5 percent slopes

Map Unit Setting

National map unit symbol: d85k
Elevation: 700 to 1,900 feet
Mean annual precipitation: 20 to 36 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 220 to 250 days
Farmland classification: Farmland of statewide importance, if irrigated

Map Unit Composition

Bolar and similar soils: 55 percent
Denton and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bolar

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy residuum weathered from limestone

Typical profile

H1 - 0 to 16 inches: clay loam
H2 - 16 to 32 inches: clay loam
H3 - 32 to 36 inches: stony clay loam
H4 - 36 to 44 inches: bedrock

Properties and qualities

Slope: 3 to 5 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 60 percent
Available water storage in profile: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: Loamy Slope 30-38" PZ (R085XY379TX)
Hydric soil rating: No

Description of Denton

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Clayey residuum weathered from limestone

Typical profile

H1 - 0 to 10 inches: silty clay
H2 - 10 to 24 inches: silty clay
H3 - 24 to 35 inches: silty clay loam
H4 - 35 to 38 inches: gravelly silty clay loam
H5 - 38 to 48 inches: bedrock

Properties and qualities

Slope: 3 to 5 percent
Depth to restrictive feature: 38 to 60 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 80 percent
Available water storage in profile: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: D
Ecological site: Clayey Slope 30-38" PZ (R085XY179TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Hydric soil rating: No

DeB—Denton silty clay, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tc47
Elevation: 400 to 1,900 feet
Mean annual precipitation: 29 to 37 inches
Mean annual air temperature: 64 to 67 degrees F
Frost-free period: 220 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Denton and similar soils: 85 percent
Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Denton

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Clayey slope alluvium and/or residuum over calcareous residuum weathered from limestone

Typical profile

Ap - 0 to 13 inches: silty clay
Bw - 13 to 19 inches: silty clay
2Bk - 19 to 36 inches: silt loam
2CBk - 36 to 52 inches: silt loam
2R - 52 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 80 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: Clayey Slope 30-38" PZ (R085XY179TX)
Hydric soil rating: No

Minor Components

Bolar

Percent of map unit: 8 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: Loamy Slope 30-38" PZ (R085XY379TX)
Hydric soil rating: No

Krum

Percent of map unit: 4 percent
Landform: Draws

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: Clayey Swale 30-38" PZ (R085XY279TX)
Hydric soil rating: No

Purves

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Summit, backslope, shoulder
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: Shallow 30-38" PZ (R085XY185TX)
Hydric soil rating: No

PcC—Purves clay, 3 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2tc2w
Elevation: 400 to 1,800 feet
Mean annual precipitation: 30 to 43 inches
Mean annual air temperature: 63 to 67 degrees F
Frost-free period: 210 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Purves and similar soils: 89 percent
Minor components: 11 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Purves

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile

A - 0 to 7 inches: clay
Bk1 - 7 to 12 inches: clay
Bk2 - 12 to 17 inches: very gravelly clay
R - 17 to 40 inches: bedrock

Properties and qualities

Slope: 3 to 5 percent
Depth to restrictive feature: 8 to 20 inches to lithic bedrock

Hydric soil rating: No

Description of Dugout

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Clayey residuum weathered from limestone

Typical profile

H1 - 0 to 18 inches: gravelly clay loam
H2 - 18 to 24 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 85 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 2.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: Adobe 30-38" PZ (R085XY176TX)
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 38 percent
Hydric soil rating: No

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City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

Attachment #10

FEMA Flood Plain

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NOTES TO USERS

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

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

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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

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

The projection used in the preparation of this map was Texas State Plane North Central Zone (FIPS zone 4202). The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3 #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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

Base Map Information shown on this FIRM was provided in digital format by the Texas Natural Resources Information System (TNRIS). This information was photogrammetrically compiled at a scale of at least 1:24 000 from aerial photography dated 2004.

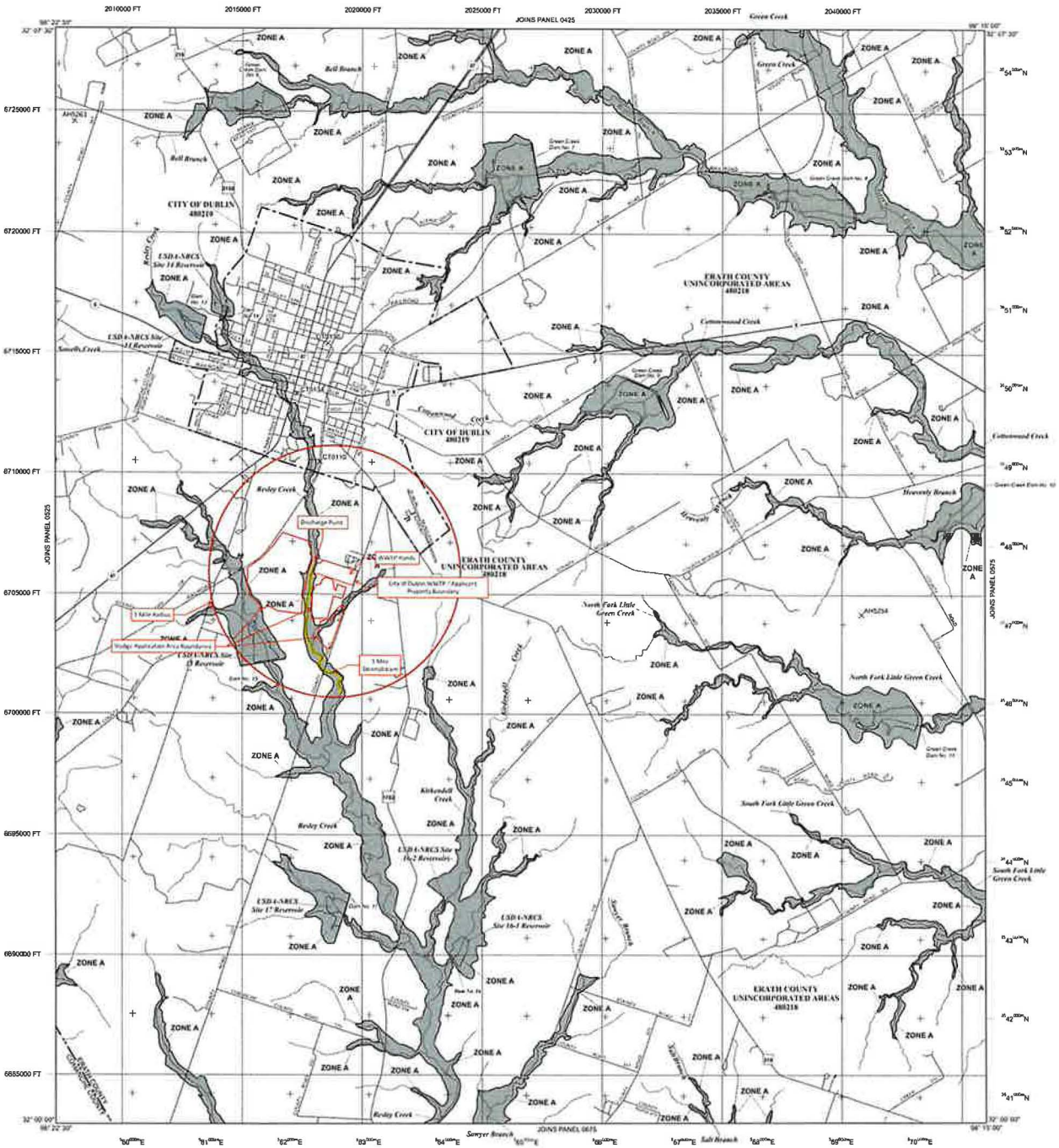
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result,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

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

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

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

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

OTHER FLOOD AREAS

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

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

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

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 45 02 08, 93 02 12 — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT — 5000-foot ticks: Texas State Plane North Central Zone (FIPS Zone 4202), Lambert Conformal Conic projection
- 9800000 M — 1000-meter Universal Transverse Mercator grid values, zone 14
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- * M1.5 — River Mile

MAP REPOSITORY
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
November 16, 2011

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

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

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
500 0 500 1000 METERS

NFIP

PANEL 0550D

FIRM

FLOOD INSURANCE RATE MAP

ERATH COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 550 OF 725
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DUBLIN, CITY OF	480219	0550	D
ERATH COUNTY, UNINCORPORATED AREAS	480218	0550	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
48143C0550D
EFFECTIVE DATE
NOVEMBER 16, 2011

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

new location in the search field above. It may take a minute or more during peak hours to generate a dynamic FIRMette.

PIN
Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
Selected FloodMap Boundary
Digital Data Available
No Digital Data Available
Unmapped

OTHER AREAS
Area of Minimal Flood Hazard Zone X
Effective LOMRs
Area of Undetermined Flood Hazard Zone D
Otherwise Protected Area
Coastal Barrier Resource System Area

SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE) Zone A, V, A99
With BFE or Depth
Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee. See Notes. Zone X
Area with Flood Risk due to Levee Zone D

OTHER FEATURES
20.2 Cross Sections with 1% Annual Chance
17.5 Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

GENERAL STRUCTURES
Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

City of Dublin
WWTP Discharge/Sludge Application
Erath County, Texas
April 2025

Attachment #11

Sludge Application

TCEQ Form No. 10451

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

325.695.1070
817.594.9880
info@jacobmartin.com
www.jacobmartin.com
3465 Curry Lane
Abilene, TX 76906
1508 Santa Fe, Suite 203
Weatherford, TX 76086

JACOB MARTIN

INTEGRITY
EXCELLENCE
TRUST

October 24, 2024

Executive Director
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

RE: Application for Renewal of a Wastewater Treatment Plant Permit
City of Dublin
Permit No. WQ0010405001
RN 101178044 /CN600625925
Renewal of Existing Permit

Dear TCEQ:

For the application related documents to renew Permit No. WQ0010405001. Form 10451 Land Owner Signature Page is pending as the Lease Agreement is currently under negotiations. The attached Lease Agreement was active until August of 2024. As soon as the agreement and form is signed they will be submitted.

If you have any questions, please feel free to contact me at our Abilene office (325) 695-1070 or email me at sfernandez@jacobmartin.com. Thank you for your assistance.

Sincerely,

Sarah Fernandez

JACOB | MARTIN

CITY OF DUBLIN ENTERPRISE FUND

054876

01-10334 ** TCEQ - PERMITS **

054876 10/07/2024

DATE	I.D.	PO #	DESCRIPTION	AMOUNT
10/01/2024	PO # 80292		SLUDGE PERMIT RENEWAL	1,000.00

** TCEQ - PERMITS **
TEXAS COMMISSION ON ENVIRONMEN
PO BOX 13089
AUSTIN, TX 78711-3089

CHECK TOTAL 1,000.00

CITY OF DUBLIN ENTERPRISE FUND

054876

01-10334 ** TCEQ - PERMITS **

054876 10/07/2024

DATE	I.D.	PO #	DESCRIPTION	AMOUNT
10/01/2024	PO # 80292		SLUDGE PERMIT RENEWAL	1,000.00

CHECK TOTAL 1,000.00

CITY OF DUBLIN
ENTERPRISE FUND
213 E BLACKJACK PH (254) 445-3331
DUBLIN, TX 76446

BANK of HOUSTON
Established 1803
Dublin Division

054876
88-359/1119

DATE

054876

AMOUNT

PAY

10/07/2024 $****1,000.00

---- ONE THOUSAND & 00/100 DOLLARS ----

TO THE ORDER OF

** TCEQ - PERMITS **
TEXAS COMMISSION ON ENVIRONMEN
PO BOX 13089
AUSTIN, TX 78711-3089

AUTHORIZED SIGNATURE

Security features. Details on back

⑈054876⑈ ⑆111903591⑆ 005579⑈

TCEQ Office Use Only
Permit No:
CN:
RN:
Region:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A PERMIT FOR BENEFICIAL LAND USE OF BIOSOLIDS

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

SECTION 1. TYPE OF APPLICATION

☐ New (original, site not permitted)

☐ New (previously permitted but allowed to expire or canceled)

☐ Major Amendment (including renewals with changes to substantive provisions of the permit)

☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)

☒ Renewal

☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

Click here to enter text.

For existing permits:

What is the permit number? WQ0010405001

SECTION 2. APPLICATION FEE

The application fee varies from $1,000 to $5,000 based on the quantity of biosolids to be applied annually. See instructions to determine the appropriate fee.

Provide your payment information below, for verification of payment

Check/Money Order Number: 054876

Check/Money Order Amount: 1,000

Name Printed on Check: City of Dublin Enterprise Fund

SECTION 3. APPLICANT INFORMATION

A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

City of Dublin

B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 600625925

C. What is the contact information for this applicant?

Contact Name: Bobby Mendez

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

Click here to enter text.

B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN Click here to enter text.

C. What is the contact information for this applicant?

Contact Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

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

Application Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Application Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St,

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Permit Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 7. BILLING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

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

Billing Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 8. REPORTING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual biosolids land application reports.

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

Reporting Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 9. NOTICE INFORMATION

A. Individual responsible for publishing the notices in the newspaper

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

First and Last Name: Bobby Mendez

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

Company Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

☐ E-mail: Click here to enter text.

☐ Fax Number: Click here to enter text.

☒ Regular Mail:

Mailing Address: 213 E Blackjack St.

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: Bobby Mendez

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

Company Name: City of Dublin

Phone Number: 254-445-3331

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: City Hall

Physical Address of Building: 213 E Blackjack St.

City: Dublin County: Erath

Phone Number: 254-445-3331

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 ☐ No ☒

   (**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? Click here to enter text.

SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: City of Dublin Wastewater Treatment Facility

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 101178044

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?

☒ Yes ☐ No

If **YES**, skip to D. If **NO**, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Click here to enter text.

D. County where the site is located: Erath

E. Latitude: 32.061869 Longitude: -98.340248

F. Landowner Information:

Attach an additional sheet if more than one landowner.

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

First and Last Name: Click here to enter text.

Organization Name: Bar B/Graham Partners LLC

Mailing Address: 1292 CR 498

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: Click here to enter text.

G. County Judge

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

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

First and Last Name: Brandon J. Huckabee

Mailing Address: 100 W Washington

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: 254-965-1452

Name of County: Erath

SECTION 11. LAND APPLICATION INFORMATION

A. Provide the anticipated date (MM/DD/YY) of the first application of biosolids after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. Click here to enter text.

B. The application area is:

☐ within the city limit of: Click here to enter text.

☒ within the extraterritorial jurisdiction of: City of Dublin

☐ outside the extraterritorial jurisdiction of: Click here to enter text.

C. Types of Waste

Identify the types of waste that will be land applied at this site.

☒ Wastewater Treatment Plant Class B Biosolids

☐ Water Treatment Plant Residuals

☐ Domestic Septage

D. Sources of Biosolids or Residuals

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Dublin Wastewater Treatment Facility	WQ0010405001	Dublin, TX

E. Property Acreage

Total acreage of the entire property, including the application area and buffer zones: 260.56

F. Application Area Acreage

Total acreage where the biosolids may be applied, excluding the buffer zones: 202

SECTION 12. 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 ☒ No ☐

If yes, provide the name(s) of the former TCEQ employee(s): Charles Keith, retired TCEQ 2006, David Hudson

B. Is the site located on Indian Lands?

Yes ☐ No ☒

C. Is any permanent school fund land affected by this application?

Yes ☐ No ☒

If yes, provide the location, forseeable impacts, and effects this application has on the land(s). Click here to enter text.

D. 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 questions, provide the amount owed, the type of fee or penalty, and an identifying number. Click here to enter text.

SECTION 13. AFFECTED LANDOWNER INFORMATION

A. Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.

Attachment Number: #4

B. Landowner list. Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: #4

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

☐ Read/Writeable CD

☒ 4 sets of mailing labels

D. Landowner data source. Provide the source of the landowners' names and mailing addresses. Erath County CAD

SECTION 14. INSURANCE INFORMATION

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: Click here to enter text.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: Click here to enter text.

SECTION 15. MAPS AND ATTACHMENTS

A. TCEQ Core Data Form

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: #1

B. General Highway (County) Map

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

Attachment Number: #8

C. United States Geological Survey (USGS) Topographic Map

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: #2

D. USDA-NRCS Soil Map

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: #9

E. Federal Emergency Management Agency (FEMA) Map

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and

the appropriate legend.

Attachment Number: #10

F. Nutrient Management Plan

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: #11

G. TCEQ Transporters Registration Approval Documents

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: No public roads used.

H. Soil Analysis

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: #11

H. Biosolids or Residuals Analyses

Attach a laboratory analysis for each source.

Attachment Number: #11

I. Metal and Nutrient Concentrations (Table 1)

Use the laboratory analyses to complete Table 1 for each source.

J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)

If more than one source of biosolids or residuals are land applied, complete Table 2.

K. Agronomic Rate Calculations (Appendix A)

Determine the agronomic application rate by completing and attaching Appendix A.

L. Pathogen Reduction Options (Appendix B)

Identify the pathogen reduction options by completing and attaching Appendix B.

M. Vector Attraction Reduction Options (Appendix C)

Identify the vector attraction reduction options by completing and attaching Appendix C.

N. On-Site Storage (Appendix D)

If on-site storage will occur at this site, complete and attach Appendix D.

LABORATORY ACCREDITATION

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

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

The applicant should review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application.

CERTIFICATION

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

Printed Name: Cory James

Title: Director of Public Works

Signature: _____ Date: 10/4/2024

SITE OPERATOR SIGNATURE PAGE

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

Permit Number: WQ0010405001

Applicant: City of Dublin

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

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

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

Signatory Name: Cory James

Title: Director of Public Works

Signature (use blue ink): Cory James Date: 10/4/2024

SUBSCRIBED AND SWORN to before me by the said Cory James on this 04 day of October, 2024

My commission expires on the 15 day of March, 2025

(Seal)

HILDA LOPEZ NOTARY PUBLIC STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974236

Notary Public

Erath

County, Texas

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Click here to enter text.

Title: Click here to enter text.

Signature (use blue ink): _____ Date: _____

SUBSCRIBED AND SWORN to before me by the said _____ on

this _____ day of _____, 20_____

My commission expires on the _____ day of _____, 20_____

_____

(Seal) Notary Public

_____

County, Texas

Attachment 1
Individual Information

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

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

Full Legal Name, including middle name: Click here to enter text.

Driver's License or State Identification Number: Click here to enter text.

State that Issued the License or Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

For TCEQ Use Only

Customer Number _____
Regulated Entity Number _____
Permit Number _____

Note: The term "biosolids" also includes the combination of water treatment plant residuals with Class B Biosolids material.

SECTION 1. SITE HISTORY

Have biosolids or septage been previously land applied at this site?

☒ Yes ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous biosolids application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Corn and sorghum are grown on the land.

SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

Corn and sorghum are grown with sludge applied as needed and are plowed into soil. Planting dates are year-round. Application is as needed and evenly distributed over soil with manure spreader.

SECTION 3. SOIL INFORMATION

A. Soil Properties

Complete the table below using the Physical and Chemical Properties and the Engineering Tables found in the USDA Natural Resources Conservation Service (NRCS) soils descriptions.

Map Symbol	Soil Type	Slope	pH	Depth to Bedrock* (inches)	Depth to Groundwater (feet)	Permeability (inches/hour)	Soil Depth** (inches)

* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.
** If soil depth is less than two feet, provide rationale for using these shallow soils. The rationale should include site specific investigation results.

B. Restrictive Soil Characteristics

In the table below, identify all soils that have the following restrictive characteristics and the management practices to be used.

- Soils with at least an "occasional flooding" classification may flood between 5 to 50 times in 100 years;
- Soil permeability of >6 inches per hour; and
- Seasonal groundwater or groundwater table below the treatment zone at least:
  - 3 feet for soil with permeability of <2 inches per hour
  - 4 feet for soil with permeability of 2-6 inches per hour.

Soil Type	Restrictive Characteristic	Best Management Practices

Soil Type	Restrictive Characteristic	Best Management Practices

SECTION 4. WELL INFORMATION

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

Well Type (Water Well, Oil Well, Injection Well)	Producing or Non-Producing	Open, Cased, or Capped*	Protective Measures**
See Attachment #3			

* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.
** The following protective measures are required prior to initial biosolids/septage application:

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

SECTION 5. HYDROLOGIC CHARACTERISTICS

Submit information listed below, or equivalent documentation, regarding the hydrologic characteristics of the surface and groundwater at the application site and within one-quarter mile of the site.

- Aquifer identification per Texas Water Development Board Report 345
- Location of the area according to the Geologic Atlas of Texas, published by the University of Texas, Bureau of Economic Geology.
- Any feature that exhibits a direct hydrologic connection between surface and subsurface water.
- List periods of seasonal perched and/or high water table, if any.

Attachment Number: Click here to enter text.

Table 1
Pollutant and Nutrient Concentrations in Biosolids and Water Treatment Residuals (if applicable)

Complete this table **for each source** of biosolids and residuals.

Facility Name: City of Dublin WWTP

TCEQ Authorization Number: WQ0010405001

POLLUTANT/METAL ANALYSIS

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

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)				
Ammonium Nitrogen (NH_4-N)				
Nitrate Nitrogen (NO_3-N)				
Total Phosphorus (P)				
Total Potassium (K)				

TABLE 2
Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration

Complete this table if more than one source is land applied at the site.

Directions:

1. For each pollutant, multiply the Pollutant Concentrations from Table 1 by the estimated number of dry tons you expect to apply from each facility.
2. Sum the individual columns. Enter results in last row of the table.
3. Divide the sum of each column by the dry tons sum (bottom of second column). Enter number in the appropriate Volume Weighted Average Box (row below table).
4. Use these final results to complete Appendix A, Step 1.

TCEQ Auth. Number	Est. Dry Tons*	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH_4-N	NO_3-N	P	K
Sum																
Volume Weighted Average																

*Total estimated dry tons to be land applied from the source facility.

APPENDIX A
AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/acre/year.

APPENDIX A, PART 1. APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS IN LBS/TON

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)		x 20	
Ammonium Nitrogen (NH4-N)		x 20	
Nitrate Nitrogen (NO3-N)		x 20	
Total Phosphorus (P)		x 20	
Total Potassium (K)		x 20	

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)		x 0.002	
Total Cadmium (Cd)		x 0.002	
Total Chromium (Cr)		x 0.002	
Total Copper (Cu)		x 0.002	
Total Lead (Pb)		x 0.002	
Total Mercury (Hg)		x 0.002	
Total Molybdenum (Mo)		x 0.002	
Total Nickel (Ni)		x 0.002	
Total Selenium (Se)		x 0.002	
Total Zinc (Zn)		x 0.002	

**Values from laboratory analysis (dry weight only).

Conversions:

mg/kg ÷ 10,000 = %

ppm = mg/kg

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Corn

Yield Goal: Silage Nitrogen Requirement, in lb/yr: 203

Cool Season Intended Crop(s): Sorghum

Yield Goal: Silage Nitrogen Requirement, in lb/yr: 208

Provide the data source for the nitrogen requirements above.

Nutrient Management Plan

Nitrogen needed by crop:

2A. Total Nitrogen Requirement* Click here to enter text.

2B. Nitrogen available in soil** Click here to enter text.

2C. Nitrogen amount still needed

Line 2A - Line 2B Click here to enter text.

*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 2B = 2*NO_3-N (ppm)(in the 0-6" soil depth) + 6*NO_3- N(ppm)(in the 6-24" soil depth)

STEP 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN) PROVIDED BY THE BIOSOLIDS AND RESIDUALS

Use the TKN, NH_4-N, and NO_3-N from Step 1.

Organic Nitrogen = TKN – (NH_4-N) – (NO_3-N) Click here to enter text.

Mineralization Rate (%) * Click here to enter text.

3A. Organic Nitrogen x Mineralization Rate Click here to enter text.

3B. Ammonium Nitrogen = (NH_4-N) x V Click here to enter text.

V = 0.5 if biosolids are left on soil surface

V = 1.0 if biosolids are worked into the soil

3C. Nitrate Nitrogen (NO_3-N) Click here to enter text.

3D. Total PAN = (Line 3A + Line3B + Line 3C)= Click here to enter text.

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Biosolids	40 %
Aerobically Digested Biosolids	30 %
Anaerobically Digested Biosolids	20 %
Composted Biosolids	10 %

STEP 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED ON CROP NITROGEN NEEDS (SAR_N)

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. Click here to enter text.

4B. Total PAN (lbs/ton)

Enter amount from Step 3D. Click here to enter text.

4C. Biosolids Application Rate (BAR_N) (tons/acre/year)

Line 4A ÷ Line 4B Click here to enter text.

STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals In Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at BAR_N (lbs/acre/yr) (C x SAR_N)	E Biosolids Applied Yearly at BAR_M (tons/acre/yr) (B ÷ C)	F Max Loading Rate (tons/acre) (A ÷ C)
Arsenic	36	1.8				
Cadmium	35	1.7				
Chromium	2677	134				
Copper	1339	67				
Lead	268	13				
Mercury	15	0.76				
Molybdenum	Monitor	Monitor				
Nickel	375	18.7				
Selenium	89	4.5				
Zinc	2500	125				
Other						

Note: For each metal, if the value in column B is greater than the value in column D (B>D), the BAR_N dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than the value in column D (B<D), then the BAR_M dictates the maximum biosolids application rate and the value of E = B ÷ C.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) Click here to enter text.

6B. Previous applications of biosolids (tons/acre) Click here to enter text.

6C. Remaining biosolids application rate to reach metal limits

Line 6A – Line 6B (tons/acre) Click here to enter text.

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)

Click here to enter text.

6E. Years remaining to reach the maximum cumulative loading

Line 6C ÷ Line 6D (years) Click here to enter text.

APPENDIX A, PART 2: SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text. Nitrogen Requirement, in lb/yr: Click here to enter text.

Cool Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text. Nitrogen Requirement, in lb/yr: Click here to enter text.

Provide the data source for the nitrogen requirements.

Click here to enter text.

Nitrogen needed by crop:

1A. Total Nitrogen Requirement* Click here to enter text.

1B. Nitrogen available in soil** Click here to enter text.

1C. Nitrogen amount still needed

Line A - Line B Click here to enter text.

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 1B = 2*NO_3-N (ppm)(in the 0-6" soil depth) + 6*NO_3- N(ppm)(in the 6-24" soil depth)

STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

AAR = N ÷ 0.0026

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C Click here to enter text.

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B Click here to enter text.

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Biosolids:

A. Biosolids Application Rate (tons/acre/year) Click here to enter text.

B. Percentage of plant nutrient supplied by the biosolids

= Click here to enter text. ÷ 100 Click here to enter text.

C. Multiple Line A by Line B (tons/acre/year) Click here to enter text.

Domestic Septage:

A. Biosolids Application Rate (tons/acre/year) Click here to enter text.

B. Percentage of plant nutrient supplied by the biosolids

= Click here to enter text. ÷ 100 Click here to enter text.

C. Multiple Line A by Line B (tons/acre/year) Click here to enter text.

APPENDIX B
PATHOGEN REDUCTION REQUIREMENTS

For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?** (Yes/No/NA)
Example WQ11280-001	Option 1: Density of Fecal Coliform	300,000 cfu/g	12/2/98	NA
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			

*Applicable to Option 1 only.
**Applicable to Option 2a – f.

If Other is selected as the Alternative Used, please explain: Click here to enter text.

APPENDIX C
VECTOR ATTRACTION REDUCTION REQUIREMENTS

For each source, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

TCEQ Permit Number	Vector Attraction Reduction Alternative Used*	Monitoring Criteria and results needed for alternative
Example WQ11280-001	Option 10: Incorporate within 6 hrs	Visual inspection of area after tilling
Example WQ13450-003	Option 4: SOUR <=1.5 mg 02/hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	

*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

APPENDIX D
ON-SITE STORAGE

If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of biosolids or septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per 30 TAC §312.50 unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. Materials cannot be treated without proper authorization from the TCEQ.

A. Provide a complete description of operational plans for the temporary storage, including all steps to be taken to control odors, vectors and other nuisance conditions.
Click here to enter text.

B. The location of the temporary storage area(s) must be accurately shown on the USGS topographic map submitted with the application, including all main features of the storage area(s) (e.g. berms, tanks, pads, liners, storm water retention, etc.).

C. Provide a copy of the liner and storage tank certification as per 30 TAC §312.50(a)(4) or 312.50(a)(8).

Attachment Number: Click here to enter text.

D. Describe the proposed spill prevention and cleanup methods.
Click here to enter text.

E. Provide a certification that the berm(s) will hold the required volume(s) without discharging as per 30 TAC §312.50 (a)(7).

Attachment Number: Click here to enter text.

F. Describe the method for stormwater runoff collection and disposal.
Click here to enter text.

G. Describe methods to be used to ensure no loads of biosolids remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by 30 TAC §312.50), when needed.
Click here to enter text.

INSTRUCTIONS FOR PERMIT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

GENERAL INFORMATION

Purpose of the Application

This form is to be used to:

- Permit a new site for beneficial land use of Class B biosolids;
- Submit a Major Amendment to change acreage or to make any other substantive change to a permitted site for beneficial land use of Class B biosolids; or
- Renew an existing permitted site for beneficial land use of Class B biosolids.

NOTE: If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of Class B biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

Who Should Apply?

This application must be submitted by the site operator. If there is more than one operator, then a co-applicant is required.

When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

Where to Send the Application Form

One original and three copies of the application, including attachments, must be provided to the address below:

Regular U.S. Mail:
TCEQ
ARP Team, MC 148
PO Box 13087
Austin TX 78711-3087

Express Mail or Hand Delivery:
TCEQ
ARP Team, MC 148
Building F Room 2101

12100 Park 35 Circle
Austin TX 78753

TCEQ Contact List

Permit Information and Application Forms:	512-239-4671
Technical Information, Land ApplicationTeam, Attn: Biosolids Group:	512-239-4671
Environmental Law Division:	512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM

Section 1. Type of Application

Select the appropriate type of application.

For amendment applications, describe the proposed changes.

For existing permits, provide the TCEQ permit number.

Section 2. Application Fee

The permit application fee varies from $1,000 to $5,000, based on the quantity of biosolids to be applied annually under the permit.

Quantity of Biosolids Applied Annually	Application Fee
2,000 dry tons or less	$1,000
2,001 to 5,000 dry tons	$2,000
5,001 to 10,000 dry tons	$3,000
10,001 to 20,000 dry tons	$4,000
20,001 dry tons or more	$5,000

Application fees must be paid by check or money order made payable to the Texas Commission on Environmental Quality. Fees are to be sent under separate cover making reference to the type of application, name of applicant, and permit number of existing permit, and mailed to:

TCEQ
Revenues Section (MC 214)
P.O. Box 13088
Austin, Texas 78711-3088

To verify receipt of payment or any other questions you may have regarding payment of fees to the TCEQ, you may call the Revenues Section, Cashiers Office at (512) 239-0357.

Section 3. Applicant Information

Provide the full legal name of the site operator.

If the site operator is an existing TCEQ customer, provide the customer number (CN) for the site operator. The Customer Number is available at the following website: http://www15.tceq.texas.gov/crpub/. If the site operator is not an existing TCEQ customer, leave blank.

Provide the following contact information for the site operator: mailing address, phone number, fax number, and email address.

Section 4. Co-Applicant Information

If there is more than one operator, then a co-applicant is required. Provide the full legal name of the co-applicant.

If the co-applicant is an existing TCEQ customer, provide the customer number (CN) for the co-applicant. The Customer Number is available at the following website: http://www15.tceq.texas.gov/crpub/. If the co-applicant is not an existing TCEQ customer, leave blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number, and email address.

Explain the need for a co-applicant.

Section 5. Application Contact Information

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner.

Section 6. Permit Contact Information

Provide the name and contact information for two individuals that TCEQ can contact if additional information is needed during the term of the permit.

Section 7. Billing Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices.

Section 8. Reporting Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual biosolids land application reports.

Section 9. Notice Information

A. Individual publishing the notices

Provide the name, company name, mailing address, telephone number and fax number of the person that will publish the public notices required during the processing of the application. Only one name can be provided. This individual will be contacted to publish the required public notices in a newspaper of the largest general circulation in the county where the facility is/will be located. This person must be available during the application processing since the first public notice. The "Notice of Receipt of Application and Intent to Obtain a Water Quality Permit" must be published within 30 days of the application being declared Administratively Complete.

B. Method of Receiving Notice Package

Provide the method of receiving the required public notice information. When the application is declared Administratively Complete, the notice package will be sent via the method selected. The notice package includes the TCEQ declaration of completeness, a notice ready for publication, instructions for publishing the notice, a publication affidavit, and a public notice verification form.

C. Contact Person in the Notice

Provide the person's name, company name, mailing address, telephone number and fax number of the one individual that will be identified as the notice contact in the two public notices that are published as part of the permitting process. This individual may be contacted by the public to answer questions about all aspects of the permit application.

D. Public Viewing Location

Provide the name and physical address for the public place where the complete application, draft permit, and Technical Summary/Fact Sheet will be made available for viewing and copying by the general public. Please verify with the proper authority they will make the application available for public viewing and copying. The address must be a physical address. Post office box addresses are not acceptable. The public place must be located within the county in which the facility is/will be located. If the facility is located in more than one county, a public viewing place for each county must be provided.

E. Bilingual Notice Requirement

Bilingual notice may be required for new, major amendment, and renewal applications if an elementary school or middle school nearest to the facility is required to make a bilingual education program available to qualifying students.

The applicant is required to call the bilingual/ESL coordinator at the nearest elementary and middle schools to obtain answers to questions 1. - 4. These questions will determine if an alternative language notice is required.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

Section 10. Regulated Entity (Site) Information

A. Provide the name of the site as known by the public in the area where the site is located.

B. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: http://www15.tceq.texas.gov/crpub/. If the site is not currently regulated by TCEQ, leave blank.

C. If the location in the existing permit is not correct or if this is a new site, provide the physical address of the site. If a physical address is not available, provide a location description.

D. Provide the county in which the site is located.

E. Provide the latitude and longitude for the site.

F. Provide the name and contact information for the landowner of the application site.

G. Provide the name and contact information for the county judge in each county where the site is located. Attach an additional sheet if the site is located in more than one county.

Section 11. Land Application Information

If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

A. Provide the anticipated date that you plan to start applications on this site. This date must be at least 330 days from the date TCEQ receives this application form.

B. Indicate by a checkmark if the beneficial land use area is within the city limits, within the extraterritorial jurisdiction, or outside the extraterritorial jurisdiction of a city. Provide the city or municipality name in the space provided.

C. Identify the types of wastes that will be land applied at this site.

D. For each source, provide the facility name, TCEQ authorization number, and the location. Add additional rows to the table, if necessary.

E. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.

F. Provide the total acreage where biosolids may be applied. Do not include buffer zones.

NOTE: A minimum buffer of 500 feet is required for water wells and surface water when land application of Class B Biosolids occurs in a county that borders the Gulf of Mexico (Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties).

Section 12. Miscellaneous Information

A. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.

B. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the Land Application Team, Attn: Biosolids Group at 512-239-4671.

C. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.

D. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties.

The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment: https://www.tceq.texas.gov/agency/fees/delin/index.html. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

NOTE: TCEQ will not declare any application administratively complete or issue a permit if the applicant or co-applicant is delinquent on a fee or penalty.

Section 13. Affected Landowner Information

A. Attach a landowner map or drawing that includes a scale, the applicant's property boundaries, the application area boundaries, the approximate property boundaries of all landowners located within 1/4 mile of the property boundaries. Assign a letter or number to each landowner.

B. Attach a list of landowners that live on land within 1/4 mile of the property boundaries. The list must include the landowner's name and address, and include a cross-reference to the letter or number identified on the landowner map. The applicant may choose to attach a list of all landowners within 1/4 mile of the property boundary, regardless of whether the landowner lives on the land.

C. Identify the format of the landowners list.

D. Provide the source of the landowner's names and mailing addresses. Sources may include City or County Tax Records.

Section 14. Insurance Information

This information is <u>not</u> required for an applicant that is a political subdivision (e.g., city, county, state agency, water district, etc.).
Note: The insurance policies required by this section must be maintained for the duration of the permit which is normally issued for a term of five years.

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability, reflecting total coverage of not less than $3 million per occurrence with an annual

aggregate of not less than $3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9145 (relating to Certificate of Insurance for Commercial Liability) or an endorsement worded identically to the wording specified in 30 TAC §37.9150 (relating to Endorsement for Commercial Liability). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment, reflecting total coverage of not less than $3 million per occurrence with a policy limit of not less than $3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

Section 15. Maps and Attachments

A. Complete and submit the TCEQ Core Data Form (TCEQ-10400).

B. Submit an original General Highway (County) Map showing all boundaries of the site area and all areas within 1000 feet of the area boundaries. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: http://www.txdot.gov/travel/county_grid_search.htm

C. Submit a full-sized USGS topographic map (1:24,000 scale). These are available by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:

- the boundaries of the property(s) being permitted;
- the boundaries of the application area within the property boundaries;
- all areas within ¼ mile of the site (if the site is on the border of the USGS map, the adjoining map is also required); and
- the location of all wells, springs, public water supply intakes, water treatment plants, potable water storage facilities, and wastewater treatment plants on-site and within ¼ mile of the application area (including off-site).

If the land application unit boundaries cannot fit or are too small to depict on the required USGS topographic map, a zoomed-in version must be submitted on a separate 81/2 X 12 map or larger. This map may be a zoomed-in version of the topographic map or an accurately self-generated map.

D. Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries, the soil legend, necessary interpretative information, and the location of each grab sample of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.

E. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries, the surrounding area within ¼

mile of the property boundaries, and the appropriate legend.

F. Submit a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the practice standards of the USDA-NRCS.

G. Submit a copy of the TCEQ transporters registration approval documents.

H. Attach the soil laboratory analysis for the application area. Additional information about collecting and analyzing the soil samples is available at the end of these instructions.

I. Attach a laboratory analysis for each source. Additional information about testing is available at the end of these instructions.

J. Metal and Nutrient Concentrations (Table 1). Use the laboratory analyses to complete Table 1 for each source.

K. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2). If more than one source of is land applied, complete Table 2.

L. Agronomic Rate Calculations (Appendix A). Determine the agronomic application rate by completing and attaching Appendix A.

M. Pathogen Reduction Requirements (Appendix B). Identify the pathogen reduction alternative for each source by completing and attaching Appendix B.

N. Vector Attraction Reduction Requirements (Appendix C). Identify the vector attraction reduction alternative for each source by completing and attaching Appendix C.

O. On-Site Storage (Appendix D). If on-site storage will occur at the site, complete and attach Appendix D.

Signature Page

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to

sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

SOIL TESTING INFORMATION

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

Parameter (7)		**0- 6 "**	**6 -24"**
Nitrate Nitrogen (NO3-N, mg/kg)	(1)	x	x
Ammonium Nitrogen (NH4-N, mg/kg)	(1)	x	x
Total Kjeldahl Nitrogen (TKN, mg/kg)	(2)	x	x
Phosphorus (plant available, mg/kg)	(3)	x	x
Potassium (plant available, mg/kg)	(3)	x	x
Sodium (plant available, mg/kg)	(3)	x	x
Magnesium (plant available, mg/kg)	(3)	x	x
Calcium (plant available, mg/kg)	(3)	x	x
Electrical Conductivity	(4)	x	x
Soil Water pH (S.U.)	(5)	x	x
Total Arsenic (mg/kg)	(6)	x	N/A
Total Cadmium (mg/kg)	(6)	x	N/A
Total Chromium (mg/kg)	(6)	x	N/A
Total Copper (mg/kg)	(6)	x	N/A
Total Lead (mg/kg)	(6)	x	N/A
Total Mercury (mg/kg)	(6)	x	N/A
Total Molybdenum (mg/kg)	(6)	x	N/A
Total Nickel (mg/kg)	(6)	x	N/A
Total Selenium (mg/kg)	(6)	x	N/A
Total Zinc (mg/kg)	(6)	x	N/A

1. Determined in a 1 N KCl soil extract (http://soiltesting.tamu.edu/webpages/swftlmethods1209.html).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

Please be advised that the maximum acceptable soil concentrations of metals are listed below. These rates are based on the maximum cumulative loading rates found in 30 TAC §312.43 Table 2- Cumulative Metal Loading Rate.

Metal	**Soil Concentration Limit (mg/kg)**
Total Arsenic	20.5
Total Cadmium	19.5
Total Chromium	1500
Total Copper	750
Total Lead	150
Total Mercury	8.5
Total Molybdenum	Monitor
Total Nickel	210
Total Selenium	50
Total Zinc	1,400

BIOSOLIDS AND RESIDUALS TESTING INFORMATION

Testing Parameters (dry weight basis) for
Class B Biosolids and Water Treatment Plant Residuals

Nutrients (%)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen Ammonium-Nitrogen Nitrate-Nitrogen Total Phosphorus Total Potassium	Total Arsenic Total Cadmium Total Chromium Total Copper Total Lead Total Mercury Total Molybdenum Total Nickel Total Selenium Total Zinc	Total PCBs

1. If accepting from multiple sources,
   a) perform a new analysis on the mixed material if blended before land application, or
   b) use Table 2 of the application form to determine the volume weighted average (mass balance) which will accurately reflect the amount of metals contributed by each facility.
2. The metal and nutrient tests shall be used to calculate the Maximum Biosolids Application Rate and Site Life in Appendix A of the application form. These tests and calculations will also be required in an annual report for the permitted site.
3. Copies of all laboratory test data with Quality Control (QA/QC) and Chain of Custody sheets must be kept on file at the site operator's place of business for at least five (5) years and can be requested by TCEQ at any time.
4. Include the most recent full Toxicity Characteristic Leaching Procedure (TCLP) analysis for each wastewater treatment plant source (Appendix E).

Maximum Metal Loadings & Concentrations

If background soil concentrations exceed the values listed below, then land application is only possible if biosolids concentrations are below the concentrations found in Table 3 of 30 TAC §312.43(b)(3).

If the concentration of any metal in the biosolids exceeds the metal ceiling concentration, then the land application of that biosolids is prohibited.

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Arsenic	36	41	75
Cadmium	35	39	85
Chromium	2,677	1,200	3,000

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Copper	1,339	1,500	4,300
Lead	268	300	840
Mercury	15	17	57
Molybdenum	Monitor	Monitor	75
Nickel	375	420	420
Selenium	89	36	100
Zinc	2,500	2,800	7,500

APPENDIX E

Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels

METALS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Arsenic	5.0	D004	7061
Barium	100.0	D005	7080
Cadmium	1.0	D006	7130
Chromium	5.0	D007	7190
Lead	5.0	D008	7420
Mercury	0.2	D009	7471
Selenium	1.0	D010	7741
Silver	5.0	D011	7760

VOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Benzene	0.5	D018	8260B
Carbon Tetrachloride	0.5	D019	8260B
Chlorobenzene	100.0	D021	8260B
Chloroform	6.0	D022	8260B
1,4-Dichlorobenzene	7.5	D027	8260B
1,2-Dichloroethane	0.5	D028	8260B
1,1-Dichloroethylene	0.7	D029	8260B
Methyl Ethyl Ketone	200.0	D035	8260B
Tetrachloroethylene	0.7	D039	8260B
Trichloroethylene	0.5	D040	8260B
Vinyl Chloride	0.2	D043	8260B

SEMIVOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
o-Cresol *	200	D023	8270C
m-Cresol *	200	D024	8270C
p-Cresol *	200	D025	8270C
Cresol *	200	D026	8270C
2,4-Dinitrotoluene	0.13	D030	8270C
Hexachlorobenzene	0.13	D032	8270C
Hexachlorobutadiene	0.5	D033	8270C
Hexachloroethane	3.0	D034	8270C
Nitrobenzene	2.0	D036	8270C
Pentachlorophenol	100.0	D037	8270C
Pyridine	5.0	D038	8270C
2,4,5-Trichlorophenol	400.0	D041	8270C
2,4,6-Trichlorophenol	2.0	D042	8270C

ORGANOCHLORINE PESTICIDES	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Chlordane	0.03	D020	8081A
Endrin	0.02	D012	8081A
Heptachlor (and its Epoxide)	0.008	D031	8081A
Lindane	0.4	D013	8081A
Methoxychlor	10.0	D014	8081A
Toxaphene	0.5	D015	8081A

CHLOROPHENOXY ACID HERBICIDES	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
2,4-D	10.0	D016	8150
2,4,5-TP (Silvex)	1.0	D017	8150

* If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used.

Reference: 40 CFR 261, Appendix II, 1993 ed., as amended by 58 FR 46040, August 31, 1993.

Attachment Index

Attachment #1	TCEQ Core Data Form, PLS, Check
Attachment #2	USGS Topographic Map
Attachment #3	SPIFF, Well Data, Map
Attachment #4	Affected Landowners, List and Agreement
Attachment #5	Flow Diagram
Attachment #6	Site Drawings
Attachment #7	Pollutant Analysis
Attachment #8	General Highway Map
Attachment #9	USDA NRCS Soil Map
Attachment #10	FEMA Flood Plain
Attachment #11	TCEQ Form No. 10451

Prepared By:

JACOB MARTIN

Firm #2448
Project #: 17390

325.695.1070
817.594.9880

info@jacobmartin.com
www.jacobmartin.com

3465 Curry Lane
Abilene, TX 76906

1508 Santa Fe, Suite 203
Weatherford, TX 76086

Candice Calhoun

From: Sarah Fernandez <sfernandez@jacobmartin.com>
Sent: Friday, November 22, 2024 4:44 PM
To: Candice Calhoun; cjames@ci.dublin.tx.us
Cc: Erwin Madrid; David Hudson
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_
Attachments: No. WQ0010405001 City of Dublin- Notice of Deficiency.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon Candice,
My apologies for the delay in response, we have been working tirelessly and collectively to get a completed NOD response. Due to laboratory delays and the Landowners unforeseen health issues, it has set us back. Please see the attached NOD response, if there are any questions, please do not hesitate to contact me or if needed I would be happy to set up a call or teams meeting to discuss the NOD. Thank you again for your time and attention, have a great weekend!

Sarah Fernandez
JACOB | MARTIN
3465 Curry Lane
Abilene, TX 79606
Ofc) 325.695.1070

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Tuesday, November 5, 2024 11:03 AM
To: cjames@ci.dublin.tx.us
Cc: Sarah Fernandez <sfernandez@jacobmartin.com>
Subject: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_
Importance: High

Good morning, Mr. James,

The attached Notice of Deficiency (NOD) letter dated **November 5, 2024,** requests additional information needed to declare the application administratively complete. Please send complete response, via email, to my attention, by **November 19, 2024.**

Please let me know if you have any questions.

Regards,

JACOB MARTIN

INTEGRITY
EXCELLENCE
TRUST

November 19, 2024

Candice Calhoun-Courville
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

RE: Application for Renewal of a Wastewater Treatment Plant Permit
City of Dublin
Permit No. WQ0010405001
RN101918308/ CN600625925
Notice of Deficiency Response

Dear TCEQ:
Enclosed is the NOD Response for the application and related documents to renew Permit No. WQ0010405001.

1. Administrative Report 1.0
Section 2, Item a – an incorrect authorization type was marked. The box listed as "Conventional Wastewater Treatment" is an error on our end and should say "Conventional Water Treatment". This is the incorrect authorization type. Please provide an updated section to show the correct authorization type marked.
- Update Made

2. USGS Topographic Map
The USGS map provided is illegible. Please provide a legible USGS map.
-Original Map Submitted attached with the Zoomed in Copy

3. Plain Language Summary (PLS)
The Plain Language Summary (PLS) provided is missing information. Please use the template provided to provide an accurate PLS. Also, please input the Sludge information into the PLS.
-Updated and attached

4. Technical Report for Beneficial Land Use of Class B Biosolids
Appendix A – this section was not completed. This section is used to calculate the application fee. Please provide a completed technical report, including the Appendix A.
-Pending Laboratory Results and further information to complete this Section.

5. Landowner Signature Page
The landowner signature page was not signed or notarized. Please provide a signed and notarized landowner signature page.
- Attached is the landowner signatures for the Graham Family. We are pending the Bramlette Family's signatures as they are currently dealing with health issues but have verbally committed to the renewal of the Lease.

6. Section 13, of the Beneficial Land Use of Class B Biosolids application, Affected Landowner Information:
Landowner Map - the landowners property boundaries and the map scale were not provided on the landowner map. Please provide a revised landowner map.
Landowner List – the landowner list was not provided. Please provide the landowner list, on its own page.
Mailing Labels – the mailing labels were not provided. Please provide the landowner list formatted for mailing labels (Avery 5160), in a Microsoft Word Document.
Source of Landowner Information – the source of landowner's names and mailing addresses was not provided. Please provide this information (Admin Report 1.0).
-Attached

7. USDA Natural Resources Conservation Services (NRCS) Soil Map
The NRCS soil map provided is missing the sludge disposal area and location of each grab sample. Please provide a revised NRCS soil map.
-Original Map Submitted attached with the Zoomed in Copy

8. FEMA Map
The site boundaries provided on the FEMA map were unclear. Please provide a legible FEMA map with the site boundaries labeled.
-Original Map Submitted attached with the Zoomed in Copy boundaries are labeled

9. General Highway (County) Map
The original, color, General Highway (County) map, showing all boundaries of the site area, was not provided. Please provide the requested information.
-Original Map Submitted attached with the Zoomed in Copy boundaries are labeled

10. Nutrient Management Plan
A copy of a Nutrient management Plan, that has been prepared by a certified nutrient management specialist, was not provided. Please provide this information.
-COC attached, pending Lab Analysis Reports

11.Transporter Registration Document
Please confirm that the City of Dublin does not transport sludge on public roads. If the City of Dublin does transport sludge on public roads, please provide the Transporter Registration Document.

JACOB MARTIN

INTEGRITY
EXCELLENCE
TRUST

-No transportation on ANY public roads

If you have any questions, please feel free to contact me at our Abilene office (325) 695-1070 or email me at sfernandez@jacobmartin.com. Thank you for your assistance.

Sincerely,

Sarah Fernandez

JACOB | MARTIN

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 5, 2024

Mr. Cory James
Public Works Director
City of Dublin
213 East Blackjack Street
Dublin, Texas 76446

RE: Application to Renew Permit No.: WQ0010405001 (EPA I.D. No. TX0054348)
Applicant Name: City of Dublin (CN600625925)
Site Name: City of Dublin WWTP (RN101918308)
Type of Application: Renewal

VIA EMAIL

Dear Mr. James:

We have received the application for the above referenced permit, and it is currently under review. Your attention to the following item(s) are requested before we can declare the application administratively complete. Please submit responses to the following items **via email.**

1. **Administrative Report 1.0**

   Section 2, Item a – an incorrect authorization type was marked. The box listed as "Conventional Wastewater Treatment" is an error on our end and should say "Conventional Water Treatment". This is the incorrect authorization type. Please provide an updated section to show the correct authorization type marked.

2. **USGS Topographic Map**

   The USGS map provided is illegible. Please provide a legible USGS map.

3. **Plain Language Summary (PLS)**

   The Plain Language Summary (PLS) provided is missing information. Please use the template provided to provide an accurate PLS. Also, please input the Sludge information into the PLS.

4. **Technical Report for Beneficial Land Use of Class B Biosolids**

   Appendix A – this section was not completed. This section is used to calculate the application fee. Please provide a completed technical report, including the Appendix A.

5. **Landowner Signature Page**

   The landowner signature page was not signed or notarized. Please provide a signed and notarized landowner signature page.

6. **Section 13, of the Beneficial Land Use of Class B Biosolids application, Affected Landowner Information:**

   Landowner Map - the landowners property boundaries and the map scale were not provided on the landowner map. Please provide a revised landowner map.

   Landowner List – the landowner list was not provided. Please provide the landowner list, on its own page.

   Mailing Labels – the mailing labels were not provided. Please provide the landowner list formatted for mailing labels (Avery 5160), in a Microsoft Word Document.

   Source of Landowner Information – the source of landowner's names and mailing addresses was not provided. Please provide this information (Admin Report 1.0).

7. **USDA Natural Resources Conservation Services (NRCS) Soil Map**

   The NRCS soil map provided is missing the sludge disposal area and location of each grab sample. Please provide a revised NRCS soil map.

8. **FEMA Map**

   The site boundaries provided on the FEMA map were unclear. Please provide a legible FEMA map with the site boundaries labeled.

9. **General Highway (County) Map**

   The original, color, General Highway (County) map, showing all boundaries of the site area, was not provided. Please provide the requested information.

10. **Nutrient Management Plan**

    A copy of a Nutrient management Plan, that has been prepared by a certified nutrient management specialist, was not provided. Please provide this information.

11. Transporter Registration Document

Please confirm that the City of Dublin does not transport sludge on public roads. If the City of Dublin does transport sludge on public roads, please provide the Transporter Registration Document.

12. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. City of Dublin, 213 East Blackjack Street, Dublin, Texas 76446, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010405001 (EPA I.D. No. TX0054348) to authorize the discharge of treated wastewater at a volume not to exceed a daily average flow of 450,000 gallons per day with provisions to land apply Class B sewage sludge for beneficial use on 202 acres of land. The domestic wastewater treatment facility is located approximately 0.75 mile southwest of the intersection of Farm-to-Market Road 219 and Farm-to-Market Road 1702, near the city of Dub, in Erath County, Texas 76446. The discharge route is from the plant site to Resley Creek; thence to Leon River Below Proctor Lake. TCEQ received this application on October 29, 2024. The permit application will be available for viewing and copying at Dublin City Hall, table in lobby, 213 East Blackjack Street, Dublin, 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/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.340277,32.061944&level=18

Further information may also be obtained from City of Dublin at the address stated above or by calling Mr. Cory James, Public Works Director, at 254-554-3331.

Please submit the complete response, addressed to my attention by November 19, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-4312 or by email at candice.calhoun@tceq.texas.gov

Sincerely,

C. Calhoun

Candice Calhoun-Courville
Applications Review and Processing Team (MC148)

Water Quality Division
Texas Commission of Environmental Quality

cgc

Enclosure(s)

Attachment 1 - Municipal TPDES and TLAP PLS Form

cc: Mrs. Sarah Fernandez, Environmental Coordinator, Jacob Martin, 3465 Curry Lane, Abilene, Texas 79606

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 054877

Check/Money Order Amount: 1215.00

Name Printed on Check: City of Dublin Enterprise Fund

EPAY — Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

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

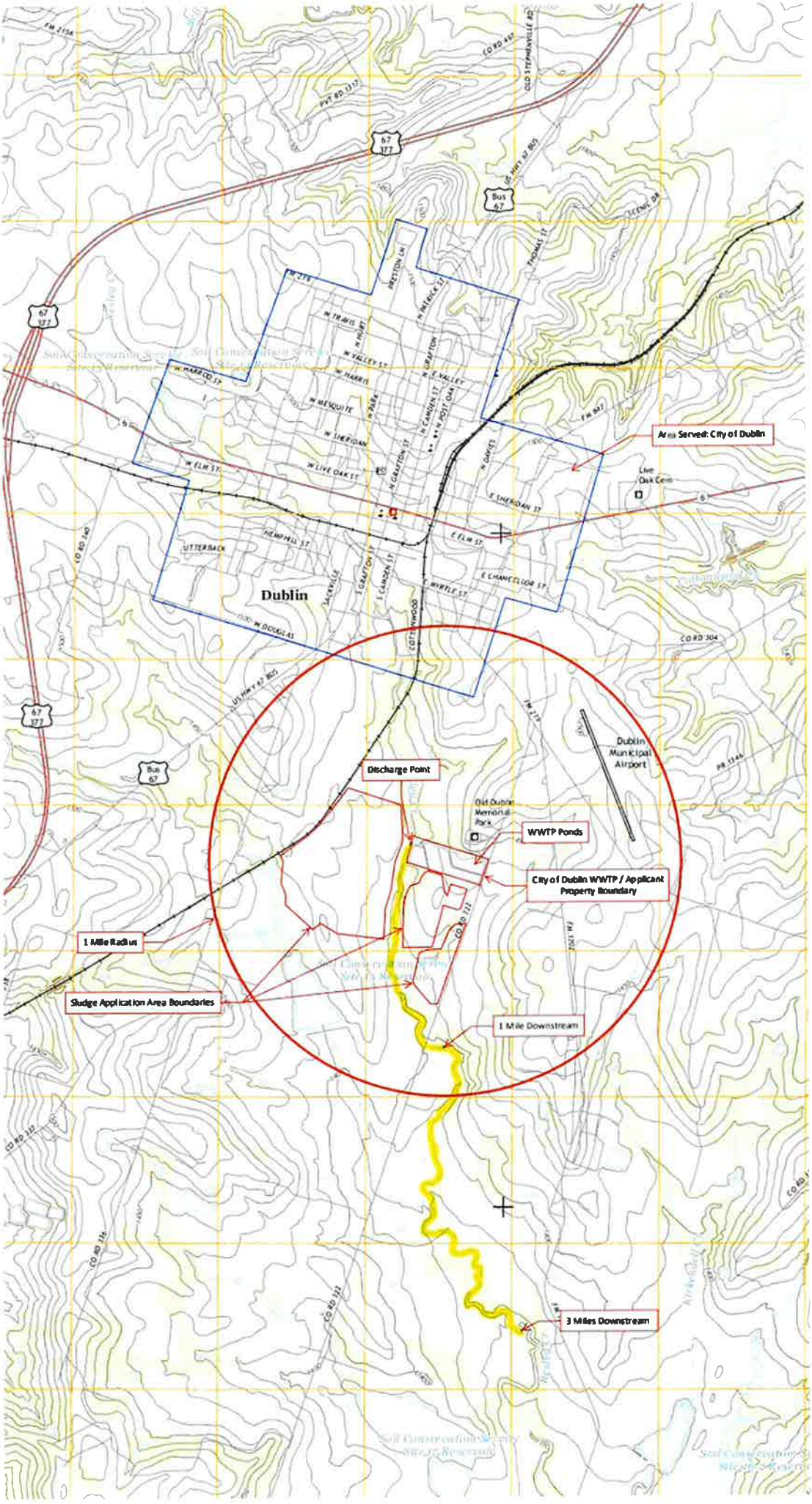
☐ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☒ Conventional Water Treatment

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

☒ Active ☐ Inactive


Area Served: City of Dublin
Dublin
Discharge Point
Dublin Municipal Airport
Old Dublin Memorial Park
WWTP Ponds
City of Dublin WWTP / Applicant Property Boundary
1 Mile Radius
Sludge Application Area Boundaries
1 Mile Downstream
3 Miles Downstream

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Barbie J. Graham

Title: Lessor

Signature (use blue ink): Barbie J. Graham Date: 11/14/2024

SUBSCRIBED AND SWORN to before me by the said Barbie Graham on this 14th day of November, 2024

My commission expires on the 16th day of July, 2027

Jennifer Wilson
Notary Public

(Seal)

TASHLI FARRELL WILSON
My Notary ID # 130297383
Expires July 16, 2027

Erath
County, Texas

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Roy K. Graham

Title: Lessor

Signature (use blue ink): Roy K Graham Date: 11/14/24

SUBSCRIBED AND SWORN to before me by the said Roy K. Graham on this 14 day of November, 2024

My commission expires on the 15 day of March, 2025

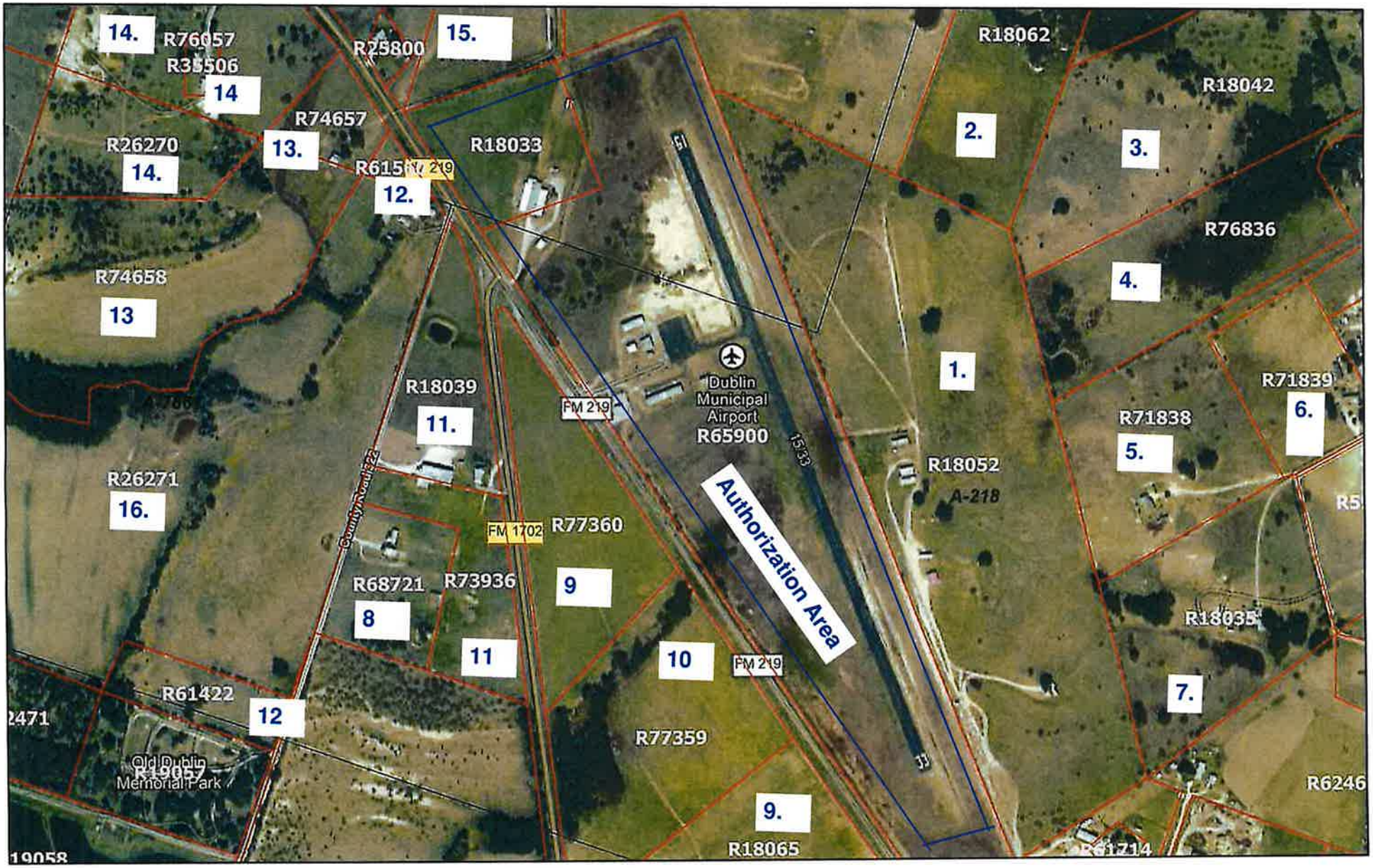
(Seal)

MELISSA MINOR NOTARY PUBLIC STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974227

Melissa Minor
Notary Public

Erath
County, Texas

Erath CAD Web Map



11/22/2024, 1:25:47 PM

Parcels

Abstracts

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Erath County Appraisal District, BIS Consulting - www.bisconsulting.com

Erath CAD Web Map

11/22/2024, 1:28:06 PM

Parcels

Abstracts

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Erath County Appraisal District, BIS Consulting - www.bisconsulting.com

Erath CAD Web Map

11/22/2024, 12:00:41 PM

Sludge Application Area

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Parcels

Abstracts

Erath County Appraisal District, BIS Consulting - www.bisconsulting.com

Erath CAD Web Map

11/22/2024, 1:31:34 PM

Parcels

Abstracts

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Erath County Appraisal District, BIS Consulting - www.bisconsulting.com

1. ELPIDIO AND LEONOR FLORES
2. KASH KOCH
3. SONJA A BANISTER
4. DON EDWARDS
5. SAMUEL MEDINA
6. DOMITILA MEDINA
7. CHRISTOPHER & LENA PHARES
8. STEPHEN BARBEE
9. RODNEY MCNEAL
10. DALTON & PAYDON KASEL
11. BRADBERRY LIVING TRUST
12. LEE & JANEY LAQUEY
13. RONNIE LYNN & MELANI BELEW
14. SHELBY ANNE & TRAVIS BROOKE
15. BOBBY WARD
16. OLD DUBLIN MEMORIAL PARK
17. JR & WENDY COCKERELL
18. WILLIAM PARKER
19. JUAN RODRIGUEZ
20. BAR B/ GRAHAM PARTNERS LLC
21. EDWIN & CAROLY BELEW
22. DAVID FRITTS
23. REBECCA PRINCE
24. PAUL BRADEBERRY
25. CHAD & AMBER MONK

BAR B/ GRAHAM PARTNERS LLC
1292 CR498
STEPHENVILLE TX 76401

DALTON & PAYDON KASEL
1694 S FM219
DUBLIN, TX 76446

JUAN RODRIGUEZ
1665 S FM219
DUBLIN, TX 76446

ELPIDIO AND LEONOR FLORES
1301 S FM219
DUBLIN, TX 76446

DAVID FRITTS
PO BOX 11
DUBLIN, TX 76446

EDWIN & CAROLY BELEW
434 EDWARDS DR
DUBLIN, TX 76446

STEPHEN BARBEE
669 CR322
DUBLIN TX 76446

BRADBERRY LIVING TRUST
1040 N POST OAK
DUBLIN, TX 76446

CHAD & AMBER MONK
910 S LIBERTY
DUBLIN, TX 76446

KASH KOCH
14896 CR126
VERNON, TX 76384

LEE & JANEY LAQUEY
PO BOX 585
ADKINS, TX 78101

REBECCA PRINCE
14839 CR351
DUBLIN, TX 76446

SONJA A BANISTER
10255 CR303
DUBLIN, TX 76446

RONNIE LYNN & MELANI BELEW
6527 CR397
DUBLIN, TX 76446

PAUL BRADBERRY
621 S PATRICK
DUBLIN, TX 76446

DON EDWARDS
9979 CR 303
DUBLIN, TX 76446

SHELBY ANNE & TRAVIS BROOKE
1001 S LIBERTY
DUBLIN, TX 76446

SAMUEL MEDINA
912 PR1346
DUBLIN, TX 76446

BOBBY WARD
PO BOX 135
DUBLIN, TX 76446

DOMITILA MEDINA
680 PR1346
DUBLIN, TX 76446

OLD DUBLIN MEMORIAL PARK
PO BOX 123
DUBLIN TX 76446

CHRISTOPHER & LENA PHARES
1195 PR 1346
DUBLIN, TX 76446

JR & WENDY COCKERELL
1305 S FM219
DUBLIN, TX 76446

RODNEY MCNEAL
405 PR 1375
DUBLIN TX 76446

WILLIAM PARKER
4389 CR194

STEPHENVILLE, TX 76401

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Dublin

PERMIT NUMBER (If new, leave blank): WQ00 10405001

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

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

For TCEQ Use Only

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

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

   ☐ Yes ☐ No

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

   ☐ Yes ☐ No

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

F. Plain Language Summary Template

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

Attachment: #1

G. Public Involvement Plan Form

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

Attachment: Click to enter text.

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** 101178044

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

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

City of Dublin WWTP

C. Owner of treatment facility: City of Dublin

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

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

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

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St. City, State, Zip Code: Dublin, TX, 76446

Phone No.: 254-445-3331 E-mail Address: Click to enter text.

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

Attachment: #4

E. Owner of effluent disposal site:

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

Title: Owners Credential: Click to enter text.

Organization Name: Barb/ Graham Partners LLC

Mailing Address: 1292 CR 498 City, State, Zip Code: Stephenville, TX 76401

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

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

Attachment: #4

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

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

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

Organization Name: Bar B/Graham Partners LLC

Mailing Address: 1423 CR 257 City, State, Zip Code: Stephenville, TX, 76401

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

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

Attachment: Click to enter text.

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☒ Yes ☐ No

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

Click to enter text.

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

☒ Yes ☐ No

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

Click to enter text.

City nearest the outfall(s): Dublin

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

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

☐ Yes ☒ No

Custom Soil Resource Report
Soil Map

Map Scale: 1:6,610 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Custom Soil Resource Report
Soil Map

Map Scale: 1:5,790 if printed on A portrait (8.5" x 11") sheet.

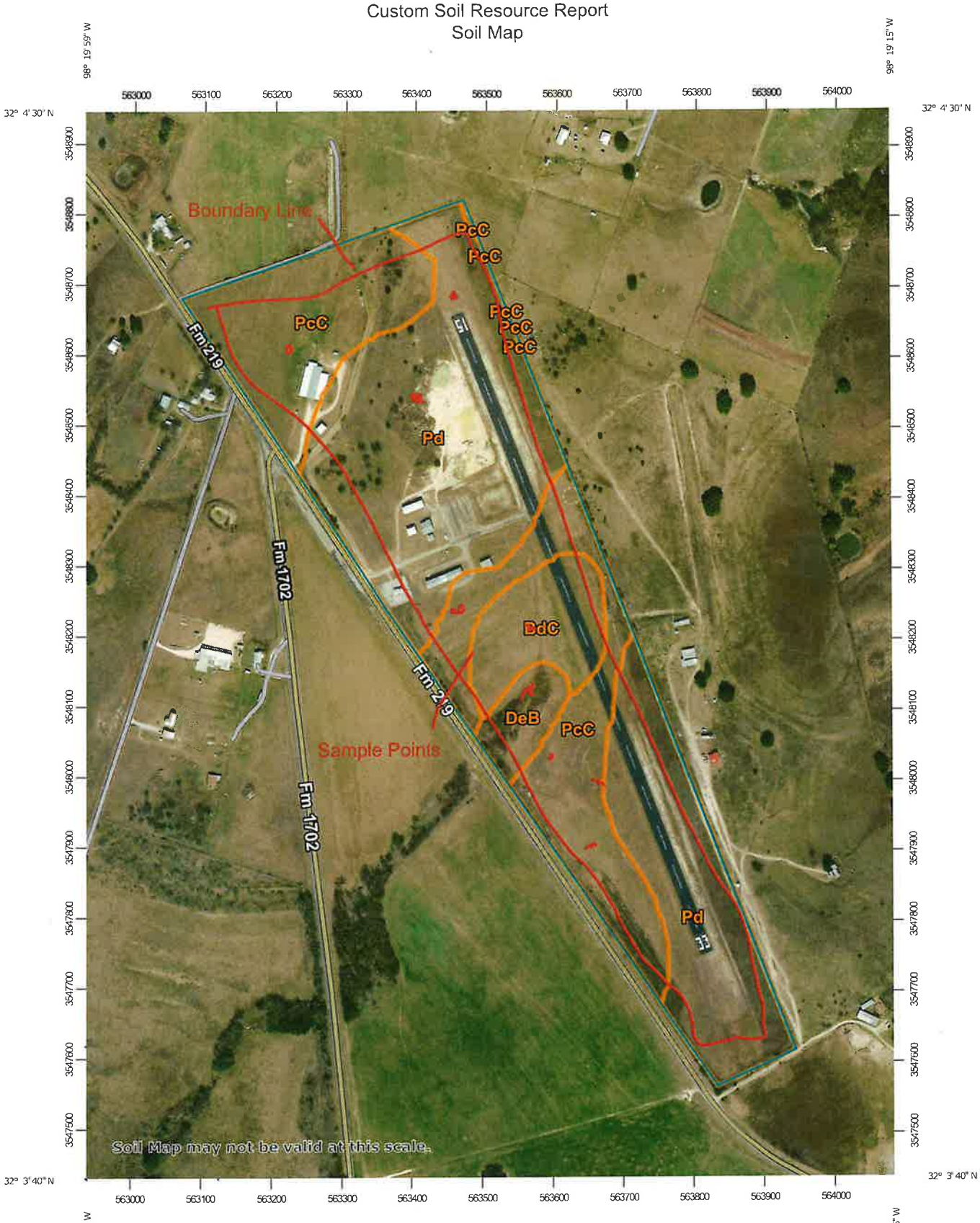
N

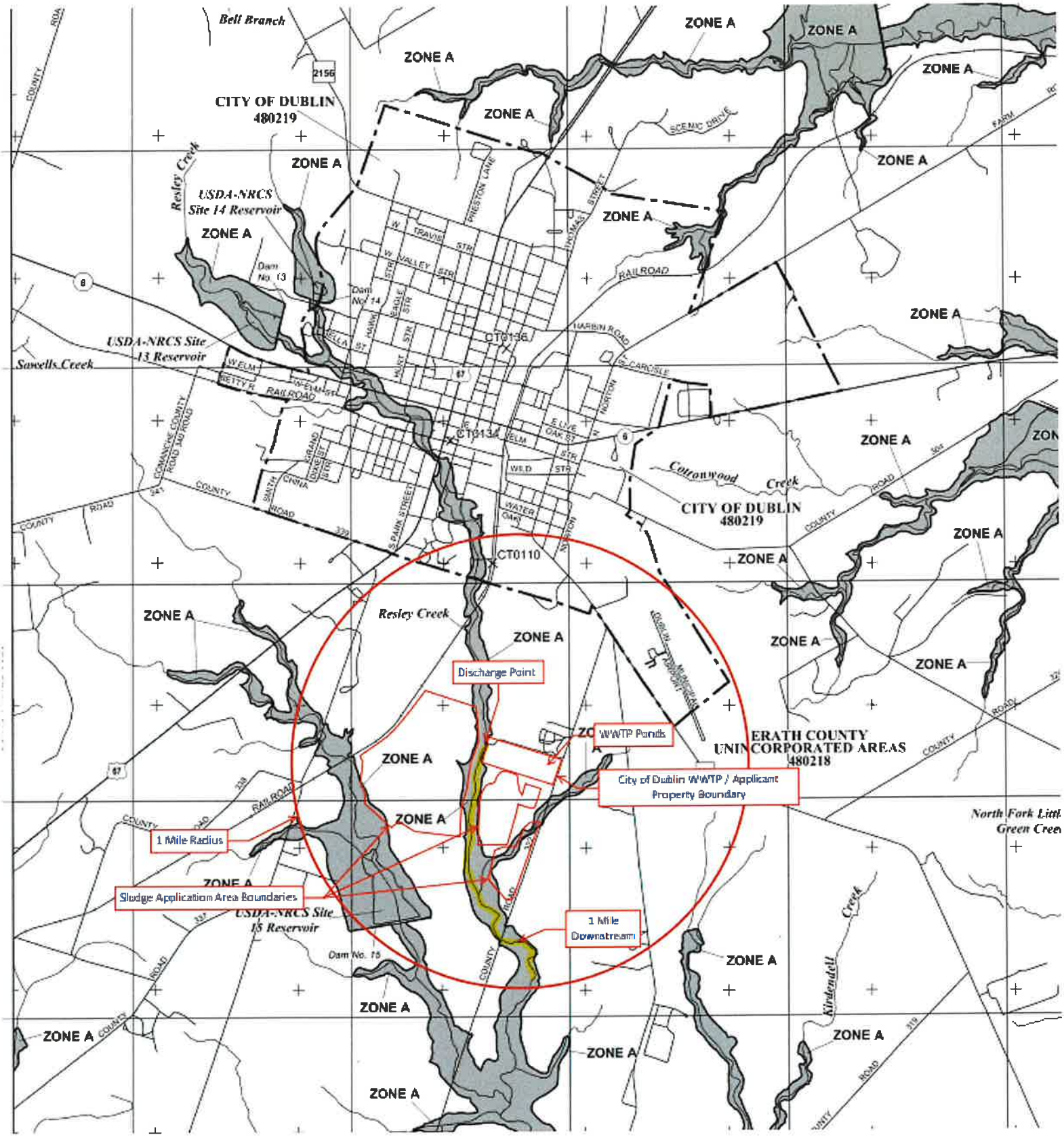
Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

Custom Soil Resource Report
Soil Map




Bell Branch
CITY OF DUBLIN
480219
ZONE A
Resley Creek
USDA-NRCS
Site 14 Reservoir
USDA-NRCS Site
13 Reservoir
Sawells Creek
Dam No. 13
Dam No. 14
CT0136
CT0134
CT0110
Cottonwood Creek
Discharge Point
WWTP Ponds
City of Dublin WWTP / Applicant
Property Boundary
ERATH COUNTY
UNINCORPORATED AREAS
480218
1 Mile Radius
Sludge Application Area Boundaries
1 Mile
Downstream
USDA-NRCS Site
15 Reservoir
Dam No. 15
North Fork Little
Green Creek
Kirtendall
Creek
RAILROAD
COUNTY ROAD

NOTES TO USERS

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

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

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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

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

The **projection** used in the preparation of this map was Texas State Plane North Central Zone (FIPS zone 4202). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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

Base Map information shown on this FIRM was provided in digital format by the Texas Natural Resources Information System (TNRIS). This information was photogrammetrically compiled at a scale of at least 1:24,000 from aerial photography dated 2004.

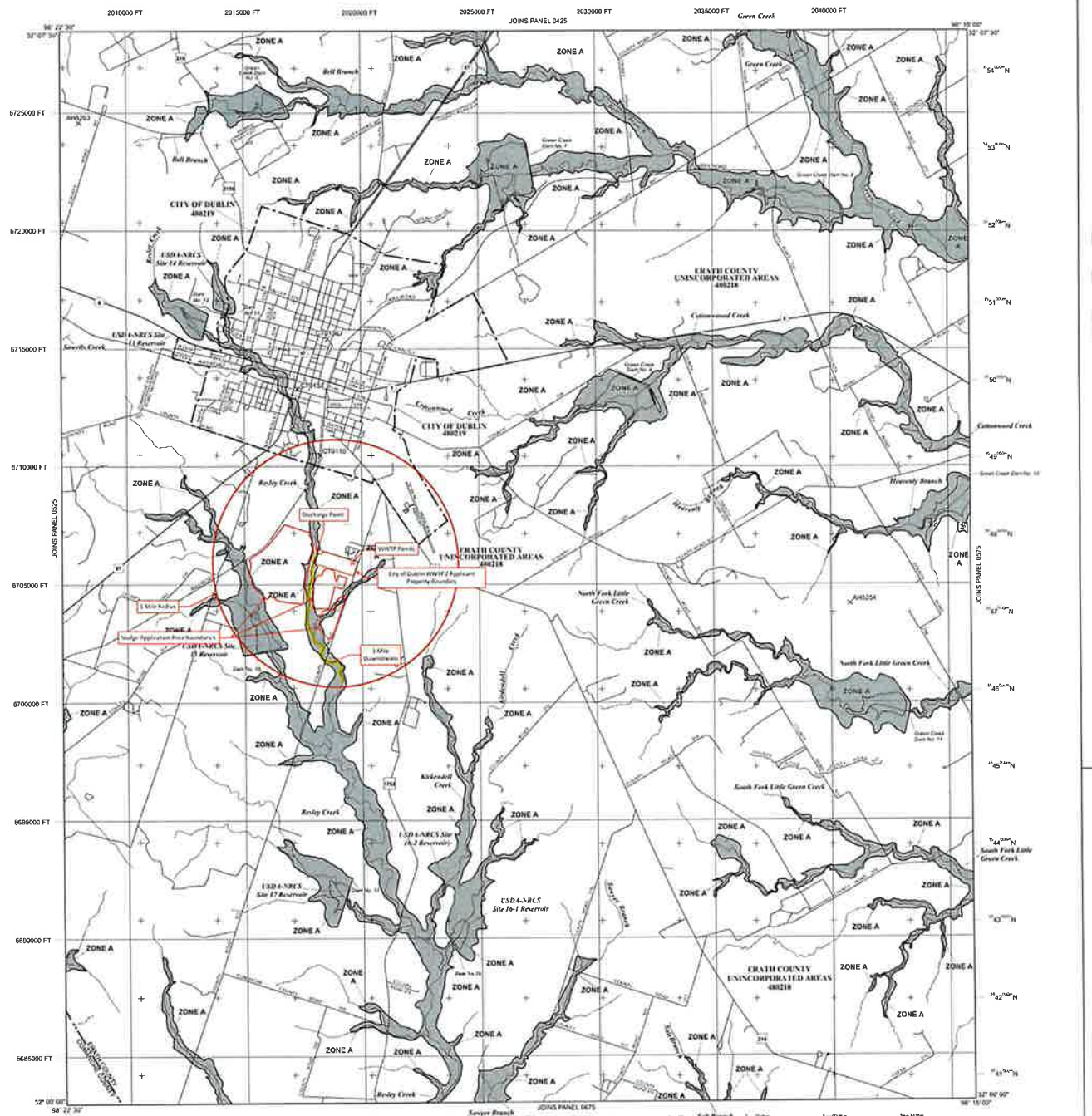
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result,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

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

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

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions** about this map, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

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

OTHER FLOOD AREAS

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

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

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

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line

97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere

1000-foot ticks: Texas State Plane North Central Zone (FIPS Zone 4202), Lambert Conformal Conic projection

5000-foot ticks: Universal Transverse Mercator grid values, zone 14

DA5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)

River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
November 16, 2011

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

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

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0550D

FIRM

FLOOD INSURANCE RATE MAP

ERATH COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 550 OF 725
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

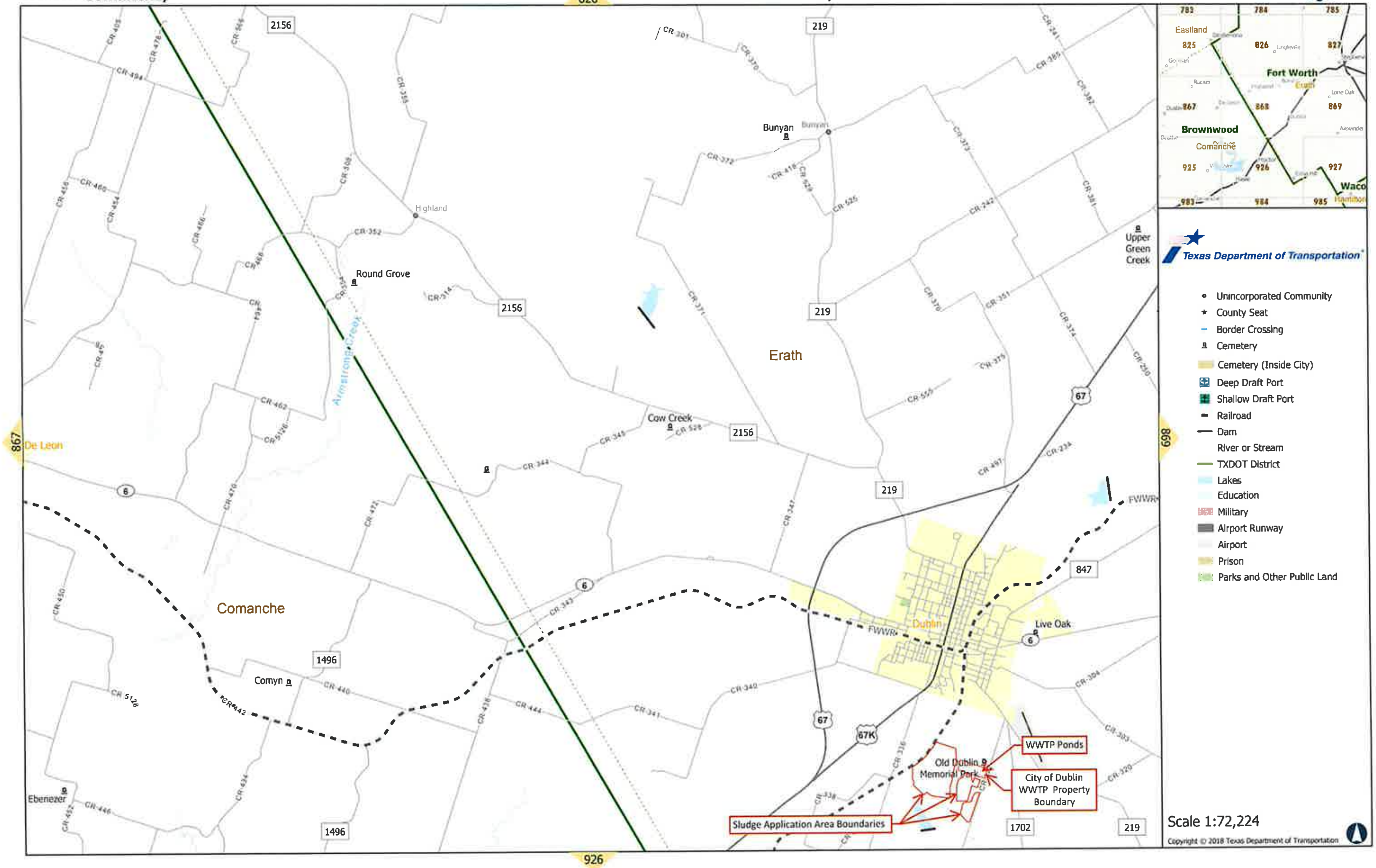
COMMUNITY	NUMBER	PANEL	SUFFIX
DUBLIN, CITY OF	480219	0550	D
ERATH COUNTY, UNINCORPORATED AREAS	480218	0550	D

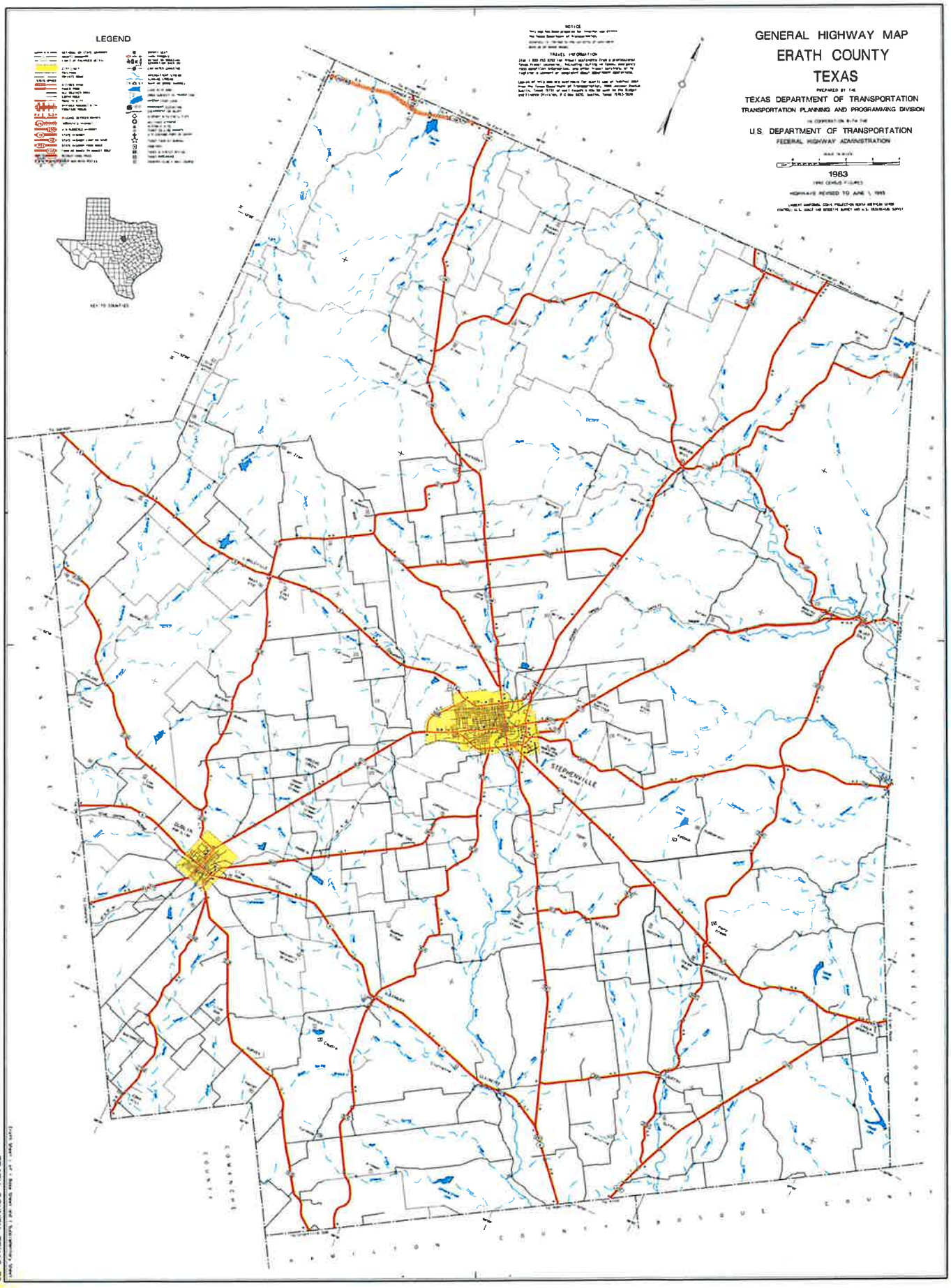
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
48143C0550D

EFFECTIVE DATE
NOVEMBER 16, 2011

Federal Emergency Management Agency


826
2156
219
CR 301
Bunyan
Highland
Round Grove
Armstrong Creek
Erath
Cow Creek
Upper Green Creek
De Leon
867
869
Comanche
Comyn
1496
Ebenezer
926
Dublin
Live Oak
FWWR
847
67
67K
6
WWTP Ponds
Old Dublin Memorial Park
City of Dublin WWTP Property Boundary
Sludge Application Area Boundaries
1702
Eastland
Fort Worth
Brownwood
Waco
Hamilton
Texas Department of Transportation
Unincorporated Community
County Seat
Border Crossing
Cemetery
Cemetery (Inside City)
Deep Draft Port
Shallow Draft Port
Railroad
Dam
River or Stream
TXDOT District
Lakes
Education
Military
Airport Runway
Airport
Prison
Parks and Other Public Land
Scale 1:72,224
Copyright © 2018 Texas Department of Transportation


LEGEND
GENERAL HIGHWAY MAP
ERATH COUNTY
TEXAS
PREPARED BY THE
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING AND PROGRAMMING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
1983
HIGHWAYS REVISED TO JUNE 1, 1983
STEPHENVILLE
ERATH COUNTY TEXAS 79

ID:

CHAIN-OF-CUSTODY / ANALYTICAL REQUEST DOCUMENT

1602 Parkwest Drive
Hastings, NE 68901

1816 East Wyatt Earp
Dodge City, KS 67801

6921 Bell Street
Amarillo, TX 79109

800-557-7509

Required Client Information: **Section A**

Company: M.E. Lowther Consulting, LLC
Address: P.O. Box 7332
Abilene, Texas 79608
manureisgood@yahoo.com
Phone: 325-692-5878 Fax: 325-692-1293

Required Client Information: **Section B**

Report To: Noel Courts, P.G.
Invoice To: Mitchell Lowther
P.O.:
Project Name:
Project Number:

Page: 1 of 1

Client Information (Check quote/contract):
Requested Due Date: *TAT:

* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calendar days.

To Be Completed by ServiTech **Section C**

Quote Reference:
Subcontract Lab:
Carrier:
Shipping Cost:

Requested Analysis or Packages:

1. TCEQ with Mehlich 3 minerals
2.
3.
4.
5.
6.
7.
8.
9.
10.

Section D **Required** Client Information:

SAMPLE ID

Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
OTHER WATER	AQ
ENV. SOIL	SL
SOLID WASTE	SW
AG SOIL	AS
FEED	FD
FERTILIZER	FT
PLANT	PT
OTHER	OT

ITEM#	(Lab Use Only) LAB#	SAMPLE ID	MATRIX CODE	DATE COLLECTED mm/dd/yy	TIME COLLECTED hh:mm a/p	#Containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	1	2	3	4	5	6	7	8	9	10	Remarks/Field Reading
1		DuWTTP 06W	AS	10/31/24	8:30am	1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
2		DuWTTP 624W	AS	10/31/24	9:00am	1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
3		DuWTTP 06E	AS	10/31/24	9:21am	1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
4		DuWTTP 624E	AS	10/31/24	9:55am	1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
5			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
6			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
7			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
8			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
9			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
10			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
11			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results
12			AS			1							☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	Please email results

Lab Use Only Paid
Sample Acceptable Yes No
Comments: CSX
Container: U B N S H O
Temp: I °C Date/Initial:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Noel Courts, P.G.
SIGNATURE of SAMPLER:
DATE signed: (MM / DD / YY) 10/31/24

Relinquished By / Company	Date	Time	Accepted By / Company	Date	Time

Samples received after 3:00 PM will be processed the next business day.

Erwin Madrid

From: Erwin Madrid
Sent: Friday, November 22, 2024 9:20 AM
To: cjames@ci.dublin.tx.us; Sarah Fernandez
Cc: Candice Calhoun
Subject: Application for Permit No. WQ0010405001 – Notice of Deficiency 30-Day Will Return Letter
Attachments: WQ0010405001_Will Return Ltr.pdf

Importance: High

Dear applicant,

The attached Notice of Deficiency 30-Day Will Return Letter was mailed on **November 22, 2024,** requesting additional information needed to declare the application administratively complete. Please mail an original and two copies (with a cover letter) of the complete response by **December 22, 2024.**

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality

Candice Calhoun

From: Candice Calhoun
Sent: Thursday, January 2, 2025 11:33 AM
To: Sarah Fernandez
Cc: cjames@ci.dublin.tx.us; David Hudson
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_

Importance: High

Good morning, Sarah,

Happy 2025! 😊

Thank you for your response. Please see my comments below.

1. Thank you, the updated section 2, item a is sufficient.

2. Unfortunately, both USGS maps provided are still illegible as they are blurry. I can try to pull the original paper copy and see if I can scan that map in to see if it will be more legible, the only thing is that today, tomorrow, and Monday are my work from home days. So, I will not be able to do that until next Tuesday, when I am back in the office.

3. Thank you, the PLS provided is sufficient.

4. The remaining pages pf the BLU Technical Report is still needed. I did see your comment about this, in the body of your email, just wanted to note that it is still needed, in my comments to you.

5. Signature page – Hopefully all is well soon for them! I did get with my supervisor to see if anything can be done to bypass that signature page. Unfortunately, we will still need that signature page, however, since there are still other items missing and we are going to put the application on hold until each item is received, you do have some time to receive that. If for some reason you are not able to get it by the time the other items have been addressed, I can go ahead and admin complete the application, so that it can move forward in the process, we would just still need to receive that signature page once the landowners are back to health and able to get it signed and notarized, before the permit is issued.

6. Landowner map – a response was not received for this one.

7. Mailing labels - Thank you, the mailing labels provided are sufficient.

8. Item 12 of the NOD still has not been addressed. Please review the portion of the NORI, listed in the NOD, and indicate if it contains any errors or omissions.

Since the 30-day deadline has passed for this application, I have gotten with my supervisor, and he is going to place the application on Hold until we can receive each item still missing.

Please let me know if you have any additional questions.

Regards,

Candice Courville
Texas Commission on Environmental Quality
Water Quality Division
512-239-4312
candice.calhoun@tceq.texas.gov

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

---

From: Sarah Fernandez <sfernandez@jacobmartin.com>
Sent: Thursday, January 2, 2025 10:02 AM
To: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Cc: cjames@ci.dublin.tx.us; David Hudson <dhudson@jacobmartin.com>
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_

Hi Candice,
Happy 2025! Attached is an updated response to the NOD list below. Please take a look at the USGS Map and see if it is any clearer, I also attached a digital copy if necessary same for the Landowner Mailing List. As for
5. Signature page – I have not received the second signature page. The second landowners are an elderly couple that have been dealing with some health issues requiring hospital stray as soon as I get something I will send that ASAP. As for the BLU attachment, I am pending a confirmation on a result from the Nutrient Management Plan, the agronomist we contracted to do this is out of the office until Monday, once received the updated form will be sent to you. Please let me know if have any questions or concerns, thanks!

Sarah Fernandez
JACOB | MARTIN
3465 Curry Lane
Abilene, TX 79606
Ofc) 325.695.1070

Candice Calhoun

From: Sarah Fernandez <sfernandez@jacobmartin.com>
Sent: Thursday, January 2, 2025 11:39 AM
To: Candice Calhoun
Cc: cjames@ci.dublin.tx.us; David Hudson
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_
Attachments: Landowner Map 2.pdf; Landowner Map 3.pdf; Landowner Map.pdf

Candice,
Thank you, same to you! Apologies attached are the landowner maps, I must've missed scanning those! We can chat Tuesday about the USGS map, I can send you the digital copy is TCEQ's FTP portal also if needed. As for #12, there are no errors.

1. Landowner map – a response was not received for this one.
2. Item 12 of the NOD still has not been addressed. Please review the portion of the NORI, listed in the NOD, and indicate if it contains any errors or omissions.

Sarah Fernandez
JACOB | MARTIN
3465 Curry Lane
Abilene, TX 79606
Ofc) 325.695.1070

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Thursday, January 2, 2025 11:33 AM
To: Sarah Fernandez <sfernandez@jacobmartin.com>
Cc: cjames@ci.dublin.tx.us; David Hudson <dhudson@jacobmartin.com>
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_
Importance: High

Good morning, Sarah,

Happy 2025! 😊

Thank you for your response. Please see my comments below.

1. Thank you, the updated section 2, item a is sufficient.

2. Unfortunately, both USGS maps provided are still illegible as they are blurry. I can try to pull the original paper copy and see if I can scan that map in to see if it will be more legible, the only thing is that today, tomorrow, and Monday are my work from home days. So, I will not be able to do that until next Tuesday, when I am back in the office.

Candice Calhoun

From: Sarah Fernandez <sfernandez@jacobmartin.com>
Sent: Monday, January 6, 2025 3:42 PM
To: Candice Calhoun
Cc: cjames@ci.dublin.tx.us; David Hudson; Erwin Madrid; Deann Cline
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_
Attachments: NOD City of Dublin WQ0010405001_ 10451.pdf

Good Afternoon Candice,
Attached is the NOD response for the City of Dublin, please review and let me know if you have any questions or if there is anything else needed. Thank you again for your time and attention, have a good evening!

Sarah Fernandez
JACOB | MARTIN
3465 Curry Lane
Abilene, TX 79606
Ofc) 325.695.1070

From: Candice Calhoun <Candice.Calhoun@tceq.texas.gov>
Sent: Friday, January 3, 2025 7:08 AM
To: Sarah Fernandez <sfernandez@jacobmartin.com>
Cc: cjames@ci.dublin.tx.us; David Hudson <dhudson@jacobmartin.com>
Subject: RE: Application to Renew Permit No. WQ0010405001 - Notice of Deficiency (NOD_

Good morning, Sarah,

Yes ma'am, the Landowner map is sufficient! 😊

Thank you,

Candice Courville
Texas Commission on Environmental Quality
Water Quality Division
512-239-4312
candice.calhoun@tceq.texas.gov

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

JACOB MARTIN

INTEGRITY
EXCELLENCE
TRUST

December 31, 2024

Candice Courville
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

RE: Application for Renewal of a Wastewater Treatment Plant Permit
City of Dubin
Permit No. WQ0010405001
RN101918308/CN600625925
Notice of Deficiency

Dear TCEQ:

Enclosed is the NOD response for the application and related documents to renew Permit No. WQ0010405001.

1. Administrative Report 1.0- In your response you corrected the box from "Conventional Wastewater Treatment" to "Conventional Water Treatment" this is the incorrect authorization type. This is not a water treatment facility, as well as, since the applicant is a City, the appropriate authorization type is "Publicly-Owned Domestic Wastewater" Please provide a corrected portion of the application.

2. USGS Topographic Map-The updated map provided is still illegible. Please provide a clear, legible USGS map.

3. PLS – a few things need to be corrected on this. The RN number listed is incorrect. The correct RN is RN101917308. The facility address listed is not near the facility coordinates nor does it match the current permit. Please provide clarification on this address. The PLS also did not include the permitted flow information. Please include this and the correct RN number to the PLS.

4. The Technical Report for BLU still has not been received. This must be received before the application can be declared administratively complete.

5. Landowners Signature page – I have not received the second signature page.

6. Landowner map – the point of discharge, highlighted discharge route and location of the facility within the applicant's property boundary was not shown. Please provide an updated map to include this.

Mailing labels – the mailing labels are required in a Microsoft word document. Please provide this.

7. Items 7 through 11 are sufficient.

8. A response for item 12 has not been received.

If you have any questions, please feel free to contact me at our Abilene office (325) 695-1070 or email me at sfernandez@jacobmartin.com. Thank you for your assistance.

Sincerely,

Sarah Fernandez

JACOB | MARTIN

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 054877

Check/Money Order Amount: 1215.00

Name Printed on Check: City of Dublin Enterprise Fund

EPAY — Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☐

Section 2. Type of Application (Instructions Page 26)

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

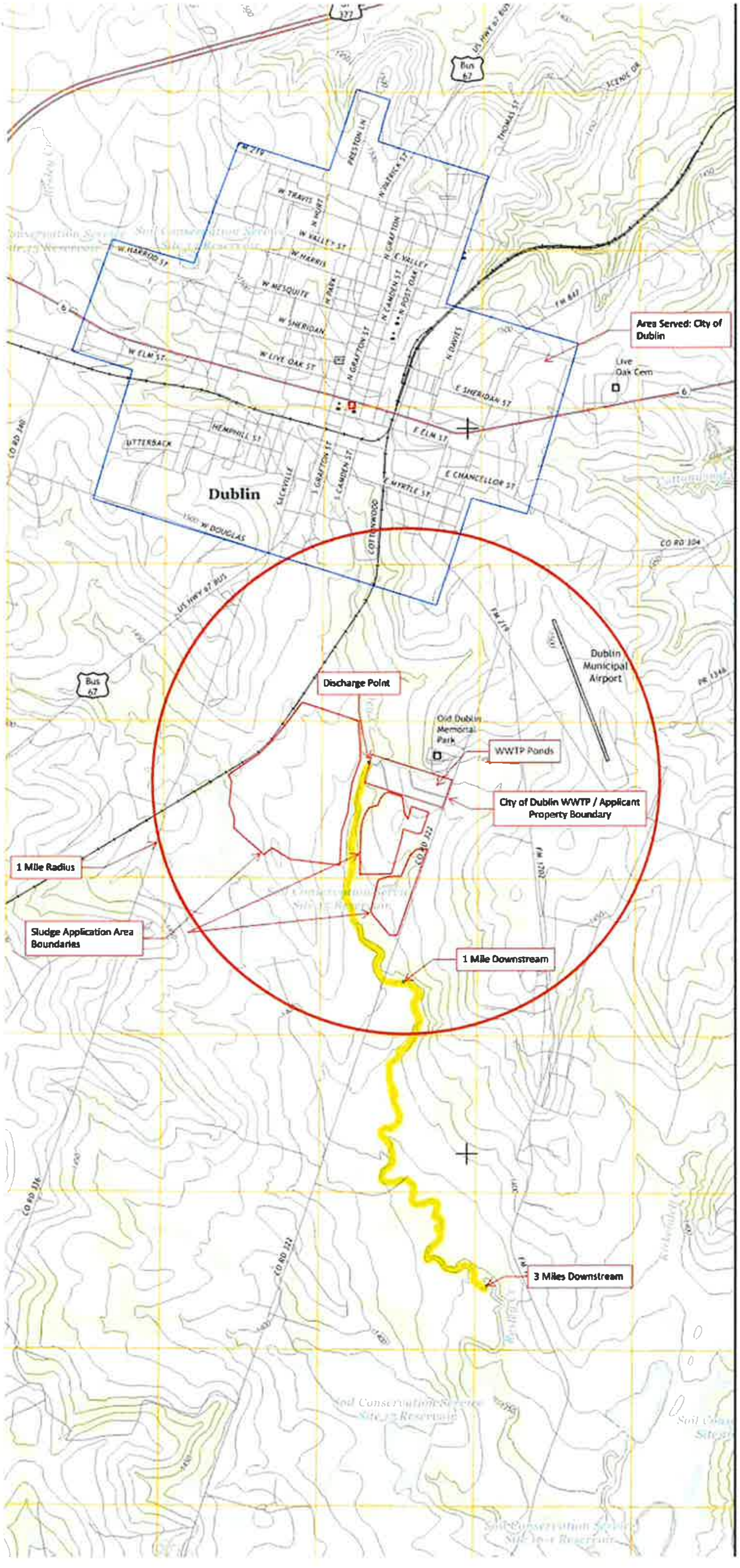
☒ Publicly-Owned Domestic Wastewater

☐ Privately-Owned Domestic Wastewater

☐ Conventional Water Treatment

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

☒ Active ☐ Inactive



Area Served: City of Dublin
Dublin
Dublin Municipal Airport
Discharge Point
Old Dublin Memorial Park
WWTP Ponds
City of Dublin WWTP / Applicant Property Boundary
1 Mile Radius
Sludge Application Area Boundaries
1 Mile Downstream
3 Miles Downstream

Plain Language Summary Template and Instructions for Beneficial Land Use of Biosolids Permit Applications

CITY OF DUBLIN WWTP (CN600625925) operates CITY OF DUBLIN WWTP RN101918308. a WASTEWATER PLANT FACILITY. The facility is located APPROXIMATELY 0.75 MI SW OF THE INTERSECTION FM 219 AND FM 1702 , in DUBLIN, ERATH County, Texas 76446.

This application is for a renewal to discharge at an annual average flow of 450,000 gallons per day of treated domestic wastewater.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), and *Escherichia coli*.

Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package.

TCEQ Office Use Only
Permit No:
CN:
RN:
Region:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A PERMIT FOR BENEFICIAL LAND USE OF BIOSOLIDS

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

SECTION 1. TYPE OF APPLICATION

☐ New (original, site not permitted)

☐ New (previously permitted but allowed to expire or canceled)

☐ Major Amendment (including renewals with changes to substantive provisions of the permit)

☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)

☒ Renewal

☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

Click here to enter text.

For existing permits:

What is the permit number? WQ0010405001

SECTION 2. APPLICATION FEE

The application fee varies from $1,000 to $5,000 based on the quantity of biosolids to be applied annually. See instructions to determine the appropriate fee.

Provide your payment information below, for verification of payment

Check/Money Order Number: 054876

Check/Money Order Amount: 1,000

Name Printed on Check: City of Dublin Enterprise Fund

SECTION 3. APPLICANT INFORMATION

A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

City of Dublin

B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 600625925

C. What is the contact information for this applicant?

Contact Name: Bobby Mendez

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

Click here to enter text.

B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN Click here to enter text.

C. What is the contact information for this applicant?

Contact Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

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

Application Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Application Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St,

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Permit Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 7. BILLING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

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

Billing Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 8. REPORTING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual biosolids land application reports.

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

Reporting Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 9. NOTICE INFORMATION

A. Individual responsible for publishing the notices in the newspaper

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

First and Last Name: Bobby Mendez

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

Company Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

☐ E-mail: Click here to enter text.

☐ Fax Number: Click here to enter text.

☒ Regular Mail:

Mailing Address: 213 E Blackjack St.

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: Bobby Mendez

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

Company Name: City of Dublin

Phone Number: 254-445-3331

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: City Hall

Physical Address of Building: 213 E Blackjack St.

City: Dublin County: Erath

Phone Number: 254-445-3331

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 ☐ No ☒

   (**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? Click here to enter text.

SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: City of Dublin Wastewater Treatment Facility

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 101178044

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?

☒ Yes ☐ No

If **YES**, skip to D. If **NO**, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Click here to enter text.

D. County where the site is located: Erath

E. Latitude: 32.061869 Longitude: -98.340248

F. Landowner Information:

Attach an additional sheet if more than one landowner.

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

First and Last Name: Click here to enter text.

Organization Name: Bar B/Graham Partners LLC

Mailing Address: 1292 CR 498

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: Click here to enter text.

G. County Judge

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

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

First and Last Name: Brandon J. Huckabee

Mailing Address: 100 W Washington

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: 254-965-1452

Name of County: Erath

SECTION 11. LAND APPLICATION INFORMATION

A. Provide the anticipated date (MM/DD/YY) of the first application of biosolids after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. Click here to enter text.

B. The application area is:

☐ within the city limit of: Click here to enter text.

☒ within the extraterritorial jurisdiction of: City of Dublin

☐ outside the extraterritorial jurisdiction of: Click here to enter text.

C. Types of Waste

Identify the types of waste that will be land applied at this site.

☒ Wastewater Treatment Plant Class B Biosolids

☐ Water Treatment Plant Residuals

☐ Domestic Septage

D. Sources of Biosolids or Residuals

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Dublin Wastewater Treatment Facility	WQ0010405001	Dublin, TX

E. Property Acreage

Total acreage of the entire property, including the application area and buffer zones: 260.56

F. Application Area Acreage

Total acreage where the biosolids may be applied, excluding the buffer zones: 202

SECTION 12. 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 ☒ No ☐

If yes, provide the name(s) of the former TCEQ employee(s): Charles Keith, retired TCEQ 2006, David Hudson

B. Is the site located on Indian Lands?

Yes ☐ No ☒

C. Is any permanent school fund land affected by this application?

Yes ☐ No ☒

If yes, provide the location, forseeable impacts, and effects this application has on the land(s). Click here to enter text.

D. 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 questions, provide the amount owed, the type of fee or penalty, and an identifying number. Click here to enter text.

SECTION 13. AFFECTED LANDOWNER INFORMATION

A. Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.

Attachment Number: #4

B. Landowner list. Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: #4

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

☐ Read/Writeable CD

☒ 4 sets of mailing labels

D. Landowner data source. Provide the source of the landowners' names and mailing addresses. Erath County CAD

SECTION 14. INSURANCE INFORMATION

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: Click here to enter text.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: Click here to enter text.

SECTION 15. MAPS AND ATTACHMENTS

A. TCEQ Core Data Form

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: #1

B. General Highway (County) Map

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

Attachment Number: #8

C. United States Geological Survey (USGS) Topographic Map

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: #2

D. USDA-NRCS Soil Map

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: #9

E. Federal Emergency Management Agency (FEMA) Map

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and

the appropriate legend.

Attachment Number: #10

F. Nutrient Management Plan

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: #11

G. TCEQ Transporters Registration Approval Documents

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: No public roads used.

H. Soil Analysis

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: #11

H. Biosolids or Residuals Analyses

Attach a laboratory analysis for each source.

Attachment Number: #11

I. Metal and Nutrient Concentrations (Table 1)

Use the laboratory analyses to complete Table 1 for each source.

J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)

If more than one source of biosolids or residuals are land applied, complete Table 2.

K. Agronomic Rate Calculations (Appendix A)

Determine the agronomic application rate by completing and attaching Appendix A.

L. Pathogen Reduction Options (Appendix B)

Identify the pathogen reduction options by completing and attaching Appendix B.

M. Vector Attraction Reduction Options (Appendix C)

Identify the vector attraction reduction options by completing and attaching Appendix C.

N. On-Site Storage (Appendix D)

If on-site storage will occur at this site, complete and attach Appendix D.

LABORATORY ACCREDITATION

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

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

The applicant should review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application.

CERTIFICATION

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

Printed Name: Cory James

Title: Director of Public Works

Signature: _____ Date: 10/4/2024

SITE OPERATOR SIGNATURE PAGE

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

Permit Number: WQ0010405001

Applicant: City of Dublin

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

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

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

Signatory Name: Cory James

Title: Director of Public Works

Signature (use blue ink): Cory James Date: 10/4/2024

SUBSCRIBED AND SWORN to before me by the said Cory James on this 04 day of October, 2024

My commission expires on the 15 day of March, 2025

Notary Public

Erath County, Texas

HILDA LOPEZ NOTARY PUBLIC STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974236

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Barbie J. Graham

Title: Lessor

Signature (use blue ink): Barbie J. Graham Date: 11/14/2024

SUBSCRIBED AND SWORN to before me by the said Barbie Graham on this 14th day of November, 2024

My commission expires on the 16th day of July, 2027

Jennifer Winn
Notary Public

(Seal)

TASHLI FARRELL WILSON
My Notary ID # 130297383
Expires July 16, 2027

ERATH
County, Texas

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Roy K. Graham

Title: Lessor

Signature (use blue ink): Roy K Graham Date: 11/14/24

SUBSCRIBED AND SWORN to before me by the said Roy K. Graham on this 14 day of November, 2024

My commission expires on the 15 day of March, 2025

Melissa Minor
Notary Public

Erath
County, Texas

(Seal)
MELISSA MINOR
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES 03-15-2025
ID # 132974227

Attachment 1
Individual Information

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

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

Full Legal Name, including middle name: Click here to enter text.

Driver's License or State Identification Number: Click here to enter text.

State that Issued the License or Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

For TCEQ Use Only

Customer Number _____
Regulated Entity Number _____
Permit Number _____

TECHNICAL REPORT
FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

Note: The term "biosolids" also includes the combination of water treatment plant residuals with Class B Biosolids material.

SECTION 1. SITE HISTORY

Have biosolids or septage been previously land applied at this site?

☒ Yes ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous biosolids application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Corn and sorghum are grown on the land.

SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

JACOB MARTIN

INTEGRITY
EXCELLENCE
TRUST

January 6, 2025

Candice Courville
Applications Review and Processing Team (MC148)
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

RE: Application for Renewal of a Wastewater Treatment Plant Permit
City of Dubin
Permit No. WQ0010405001
RN101918308/CN600625925
Notice of Deficiency

Dear TCEQ:

Enclosed is the NOD response for the application and related documents to renew Permit No. WQ0010405001.

4. The Technical Report for BLU still has not been received. This must be received before the application can be declared administratively complete.

If you have any questions, please feel free to contact me at our Abilene office (325) 695-1070 or email me at sfernandez@jacobmartin.com. Thank you for your assistance.

Sincerely,

Sarah Fernandez

JACOB | MARTIN

Waste Utilization and Nutrient Management Plan

City of Dublin WTTP
213 E. Blackjack
Dublin, Texas 76446
254-445-3331

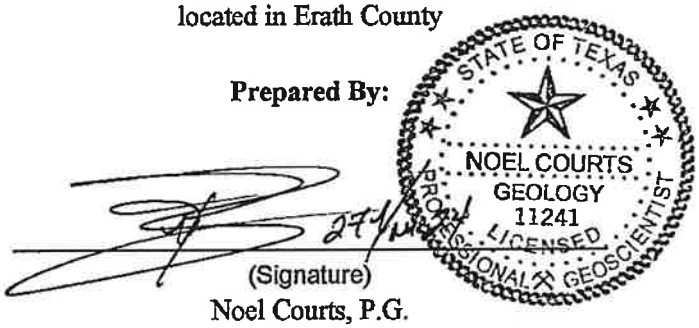
TCEQ Permit Number:
WQ0010405001

Owner
City of Dublin WTTP
213 E. Blackjack
Dublin, Texas 76446
254-445-3331

Operator
Corey James
213 E. Blackjack
Dublin, Texas 76446
254-445-3331

Type of Waste Plan:
Biosolids
located in Erath County

Prepared By:



(Signature)

Noel Courts, P.G.
Certified Nutrient Management Specialist
Certificate Number = TX20221
Expiration Date = January 31, 2025
M.E. Lowther Consulting, LLC
P.O. Box 7332
Abilene, Texas 79608-7332
325-692-5878

This plan is based on:
590 -633 Plan V 4.0_5

11/27/24 10:33 AM

Waste Utilization and Nutrient Management Plan

EXECUTIVE SUMMARY: Permit #: WQ0010405001

This Nutrient Management Plan has fields that meet NUPs requirements.

This Nutrient Management Plan has fields that meet NMPs requirements.
This NMP meets all state and federal requirements.
LMU #1 and LMU#2 will need supplementals nutrients for optimal crop growth.
All frequently flooded soils were buffered out of the applicable acreage.

LOCATION AND PURPOSE OF THE PLAN

Located in : Erath County

See plan map for location. The purpose of this plan is to outline the details of land application of biosolids on this land. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Nutrient Management Standard (590) and Waste Utilization Standard (633). When the appropriate land treatment practices needed to reduce runoff are fully implemented and maintained in each field the plan will provide the more comprehensive benefits of minimizing the affects of the land application of biosolids on the air, soil, water, and animal resources in and around the application area. Annual maximum application rates are determined using **Table 2 & 2a** depending on the current soil test P level and P index result for each field receiving biosolids.

Table 3 provides an estimate of the nutrients removed in the harvested portion of the crop at the planned yield goal for hay, grain, and fiber crops. The values used for grazed crops are the estimated amount of nutrients taken up in the above ground portion of the plants.

ESTIMATED NUTRIENT AVAILABILITY

Permit #: WQ0010405001

Refer to **Table 4** for field specific maximum biosolids application rates. Values in **Table 4** are based on the data in **Table 1**. Application will be based on biosolids analysis. Applying biosolids at **MAXIMUM** rates shown in **Table 4** will result in a more rapid build-up of phosphorus than if applied at lower rates. Phosphorus will build up more rapidly on pastureland than on hayland or cropland, since a much small amount of nutrients are actually removed from the farm by grazing animals. Biosolids may be applied to the same acreage every year, but if the soil test P level exceeds the critical level, or the Texas P Index result changes the rates of application will have to be reduced in accordance with Texas NRCS Nutrient Management Standard (590). This plan is valid only if the annual application of biosolids to the crops listed in **Table 4** 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 accordingly the following year.

Recommended annual application amounts that are smaller than can physically be applied due to limitation of the application equipment should be doubled and applied to the field every other year. No other P fertilizer may be used the second year, but supplemental N and K2O should be applied, if needed. If the P index critical P level is exceeded, it is recommended that no additional biosolids be applied to those fields until the level is reduced. Biosolids applications should be made at appropriate times to meet crop needs, but may be applied at any time as long as soils are not saturated, snow covered, or frozen, and the annual maximum is not exceeded.

SUPPLEMENTAL NUTRIENTS TO MEET YIELD GOAL

Table 5 shows the estimated amount of nutrients that are applied in pounds per acre for each field where biosolids are applied using per acre amounts shown in **Table 4**. Supplemental nitrogen (N) and potassium (K2O) will be applied to achieve the yield goals noted in **Table 5**, when recommended based on soil analysis and the annual biosolids application does not meet the requirements as detailed in **Table 5.**

Deep soil sampling is recommended on application areas where loamy to clayey soils are present and biosolids have been applied previously. If this deep testing reveals accumulated nitrate N in the root zone, it should be deducted from any supplemental N to be applied to meet the planned yield goal. Sampling in 6 inch increments to a depth of 3 feet is sufficient for most crops.

ADJUSTMENTS TO APPLY LESS THAN THE MAXIMUM RATES

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** can be reduced down to the level that does not exceed the amount of solids available. **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 reduced rates. The amount 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 uses 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.

Acres of biosolids exclusion zones are noted in **Table 8**. Location of buffers and other exclusion zones are found on the application area map.

Filter Strips will meet the Texas USDA/NRCS standard (393). A minimum 100 foot wide grassed and/or wooded buffer providing at least 70% ground cover will be maintained between the application area and all water courses, ponds, lakes, wetlands, etc.

Riparian Forested Buffers (if used) will meet the Texas USDA/NRCS Standard (391). When planned, a minimum 50 foot wide wooded buffer will be maintained between the application area and the edge of streams, creeks, rivers, etc. to protect water quality, decrease water temperatures, improve aquatic organism habitat, reduce sediment and nutrient loading and reduce bank erosion. Select harvesting within this zone may be done in accordance with guidelines of the Texas Forest Service. If the wooded buffer is only 50 feet wide, there still must be a minimum 100 feet between biosolids application area and stream bank. Another vegetated buffer will be established or maintained to account for the remaining distance. Biosolids will not be applied within 100 feet of any waterway, stream, creek, pond, lake, or wetlands.

The minimum application distance from private or public wells will be 150 feet and 500 feet respectively. Private wells that are located within a field where biosolids are applied and are part of a center pivot irrigation system are exempt from the set-back requirement. The minimum suggested application distance from schools, institutions, and densely populated residential, business, or similar development is 1000 feet.

Biosolids will not be applied to any buffer areas or any frequently flooded areas, as designated by county soil survey.

PLANNED METHOD OF APPLICATION

Biosolids may be surface applied uniformly, injected, or incorporated below the surface of the soil within the root zone of the planned crop. To reduce soil compaction, applications should only be made when soil conditions are favorable. Biosolids should not be spread if heavy rains are forecast to occur within 1 day of a proposed application date.

ODOR MANAGEMENT

The following steps should be taken when spreading biosolids to reduce problems associated with odor.
1. Avoid spreading biosolids when wind will blow odors toward populated areas.
2. Avoid spreading biosolids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
3. Avoid spreading biosolids near heavily traveled highways.
4. Make biosolids applications in the morning when the air is warming, rather than in the late afternoon.

BIOSOLIDS TESTING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling and testing requirements of your permit. For applications not permitted by TCEQ, the biosolids need to be analyzed for percent moisture, total nitrogen, total phosphorus, and total potassium.

BIOSOLIDS STORAGE

Permit #: WQ0010405001

Biosolids may be temporarily stockpiled and covered with durable plastic or other suitable tarp material. Stockpiled biosolids must be sited on suitable soil, geology, and topography to prevent contamination of waterways. Runoff from stockpiled biosolids must be retained on-site by use of berms or other adequate structures where there is potential transport of biosolids into waterways.

COLLECTING SOIL SAMPLES FOR ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

Collect a composite sample for each field (or area of similar soils and management not more than about 40 acres) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface. 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, available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity, and pH. Also note on the samples that they are from a biosolids application area.

SOIL ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

A base line soil analysis will be completed for all areas to be used for biosolids application. The area will be tested every year that biosolids are applied to monitor P build up. If soil test values rise to a higher category, i.e., Low to Medium, contact the local Soil and Water Conservation District or USDA/NRCS office to revise the Waste Utilization Plan and to assist in development of a plan to reduce P in the field(s).

RECORD KEEPING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the record keeping requirements of your permit. If application area is not regulated by TCEQ:

Detailed records should be maintained for all applications of biosolids for a period of at least 5 years. Records should include date, time, location, and amount of application; they could also include weather conditions, estimated wind speed and direction, etc. Keep all soil and biosolids analyses for the same period.

OPERATION AND MAINTENANCE

Application equipment should be maintained in good working order, and it should be calibrated at least once a year, so that the desired rate and amount of biosolids will be applied. Any changes in this system must be discussed with Texas Commission on Environmental Quality (TCEQ) prior to their initiation on permitted sites. If your site is not permitted by TCEQ, contact your local NRCS office for updates and assistance.

Waste Utilization and Nutrient Management Plan

SIGNATURE PAGE WQ0010405001

Plan Prepared by:	**Noel Courts, P.G.**	Date: **11/27/2024**
Plan Approved by:		Date:
Producer Signature:	Plan discussed w/ Landowner	Date: 11/27/2024

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.

PI Index by Field

Printed on: 11/27/24 10:34 AM

This plan is based on: 590 -633 Plan V 4.0_5

Permit #: WQ0010405001

Client Name: City of Dublin WTTP

Planner: Noel Courts, P.G.

Date: 11/27/2024

Location: Erath

Rainfall: >25.0 inches

LMU or Fields	Crop	Slope	Runoff Curve	Soil Test P Level	Inorganic P_2O_5 Appl Rate	Organic P_2O_5 Appl Rate	Inorganic Method & Timing	Organic Method & Timing	Proximity of Appl to Named Stream	Runoff Class	Soil Erosion	Total Index Points	P Runoff Potential	Soil Test Date:
1	Silage - Corn21-25T;SG Silage-5-7T	1.6%	85	2	0	6	0	4	5	2	1.5	20.5	Medium	11/20/24
2	Silage - Corn21-25T;SG Silage-5-7T	1.4%	85	2	0	6	0	4	5	2	1.5	20.5	Medium	11/20/24

Waste Utilization and Nutrient Management Plan

Table 1 - Est. Amount of Waste Allowed for Land Application Permit #: WQ0010405001

Biosolids Type	Est. Max DRY tons applied annually
Other	4240.8

Contact your agronomic consultant, TCEQ or local USDA Natural Resources Conservation Service office, if the application quantities change by more than 10 percent so your plan can be revised.

1,728

				Solids used		
#N/A	#N/A	#N/A	**	8,861	2.1	**
#N/A	#N/A	#N/A		62,350	14.7	
#N/A	#N/A	#N/A		15,989	3.8	

** Effluent Values Based on Analysis dated: N/A

** Solids Values Based on Analysis

Explanation of Other Biosolids Type:

Municipal Sludge BioSolids

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

Waste Utilization and Nutrient Management Plan

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 [5/]	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 [3/]	2.0 Times Annual Crop P Requirement [3/]	2.0 Times Annual N Requirement
High	1.5 Times Annual Crop P Requirement [3/]	1.5 Times Annual Crop P Requirement [3/]	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement
Very High	1.0 Times Annual Crop P Requirement [3/]	1.0 Times Annual Crop P Requirement [3/]	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/] is:

- **equal to or greater than 200 ppm in non-arid areas [2/] or**
- **equal to or greater than 350 ppm in arid areas [2/] with a named stream greater than one mile or**
- **equal to or greater than 200 ppm in arid areas [2/] with a named stream less than one mile.**

P – Index Rating	Maximum TMDL Annual P Application Rate [5/]	Maximum Annual P Application	Maximum Biennial Application Rate
Very Low, Low	1.0 Times Annual Crop P Removal [4/]	Annual N Crop Removal	2.0 Times Annual N Removal
Medium	1.0 Times Annual Crop P Removal [4/]	1.5 Times Annual Crop P Removal [4/]	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
High	1.0 Times Annual Crop P Removal [4/]	1.0 Times Annual Crop P Removal [4/]	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
Very High or soil test P [1/] => 500 ppm in nutrient impaired TMDL areas.[6/]	0.5 Times Annual Crop P Removal [4/]	0.5 Times Annual Crop P Removal [4/]	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.

3/ Not to exceed the annual nitrogen requirement rate.

4/ Not to exceed the annual nitrogen removal rate.

5/ TMDL watersheds are designated by Texas Commission on Environmental Quality (TCEQ).

Waste Utilization and Nutrient Management Plan

Table 3 - Crop Removal Rates (For Information Only) Permit #: WQ0010405001

LMU or Field No.	Acres	Crop and P Index Level	TCEQ Plan Type	Actual Crop Analysis or Default	Total Est. N Removal lbs/Ac/Yr	Total Est. P_2O_5 Removal lbs/Ac/Yr	Total Est. K_2O Removal lbs/Ac/Yr
LMU #1	156.0	Silage - Corn21-25T;SG Silage-5-7T M	NMP	Default	328	128	236
LMU #2	59.0	Silage - Corn21-25T;SG Silage-5-7T M	NMP	Default	328	128	236

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**

Waste Utilization and Nutrient Management Plan

Table 4 - Maximum Solids Application per Field

Permit #: WQ0010405001

Est. Solids Produced Annually (wet tons)	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)
0	LMU #1	156.0	Silage - Corn21-25T;SG Silage-5-7T M	30	290	A	19.7	3077
	LMU #2	59.0	Silage - Corn21-25T;SG Silage-5-7T M	41	290	A	19.7	1164
Total Solids Application Acres								
215								
Application Allowable on-site (tons)								
4240.8								
Adequate								
Solids to be used off-site (tons)								
0.0								

End of Table 4

Waste Utilization and Nutrient Management Plan

Table 5 - Nutrients Applied/Needs at Maximum Solids Rates Permit #: WQ0010405001

	Nutrients Applied When Application is at Maximum Rates			Supplemental Nutrients Needed When Application is at Maximum Rates			
LMU / Field #	N Lb/ac	P_2O_5 Lb/ac	K_2O Lb/ac	N Lb/ac	P_2O_5 Lb/ac	K_2O Lb/ac	Lime T/Ac
LMU #1	41	290	74	235	0	0	0
LMU #2	41	290	74	235	0	0	0

Waste Utilization and Nutrient Management Plan

Table 6 - Planned Solids Application Rates Permit #: WQ0010405001

LMU or Field No.	Double crop	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Max Rate tons/ac	% of Maximum to apply	Planned Solids tons/ac	Planned Solids per field (tons)
LMU #1		156.0	Silage - Corn21-25T;SG Silage-5-7T M	30	A	19.7	100	19.7	3077.1
LMU #2		59.0	Silage - Corn21-25T;SG Silage-5-7T M	41	A	19.7	100	19.7	1163.8
Acres		215.0		Will the planned per acre application rates use all of the Solids?					4240.8
4241			Tons wet of solids to be used						YES
0				Tons to be used off-site at planned rates					4241

Waste Utilization and Nutrient Management Plan

Table 7 - Nutrients Applied/Needed at Planned Solids Rates Permit #: WQ0010405001

Red cells? Proceed to adjustment page and fix.

	Nutrients Applied at Planned Rates			Supplemental Nutrients Needed at Planned Rates			
LMU / Field #	N Lb/ac	P_2O_5 Lb/ac	K_2O Lb/ac	N Lb/ac	P_2O_5 Lb/ac	K_2O Lb/ac	Lime T/Ac
LMU #1	41	290	74	235	0	0	0
LMU #2	41	290	74	235	0	0	0

Waste Utilization and Nutrient Management Plan

Table 9 - Non Application Areas by Field Permit #: WQ0010405001

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

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
LMU #1	8.0	12.0	0.0	0.0	20.0
LMU #2	0.0	7.0		0.0	7.0

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
Totals	8.0	19.0	0.0	0.0	27.0

See Application Map for location of buffers

Total 590-633 application acres: 215.0

Total 590-633 Field Acres: ERROR

Waste Utilization and Nutrient Management Data Entries

	General Data
Date :	11/27/2024
Farmer Name :	City of Dublin WTTP
County in which the Land is located :	Erath
Type of Waste Plan :	Biosolids
Is this plan in a TMDL watershed for nutrients? Yes or No :	Yes
Is any field PERMITTED by TCEQ? Yes or No :	Yes
Permit # :	WQ0010405001

All other entries on General Page appear on the Cover Page

	Biosolids Information	
Plan Year :	2024-25	Explain Other:
Biosolid Type :	Other	Municipal Sludge BioSolids
Analysis Date:	10/21/2014	
Nitrogen % From Biosolids Analysis:	0.19	
Phosphorus % From Biosolids Analysis:	0.47	
Potassium % From Biosolids Analysis:	0.23	
Moisture % From Biosolids Analysis:	31.70	
Does this site generate biosolids?	No	
If B11 = "Yes", How many dry tons/year?	0.00	

This plan is based on: 590 -633 Plan V 4.0
Printed on: 11/27/24 10:35 AM

Field and Buffer Entries

Permit #: WQ0010405001

Printed on: 11/27/24 10:35 AM

Plan is based on: 590 -633 Plan V 4.0_5

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
LMU #1	176	8	12			20.0	156.0	
LMU #2	105		7	39		46.0	59.0	

Soil Test, Crop Information and Plant Analysis Data Entries

Printed on: 11/27/24 10:35 AM Plan is based on: 590 -633 Plan V 4.0_5 Permit #: WQ0010405001

Soil Test Analysis				This column only for Dry Poultry	LMU or Field #	Appl. Area Acres	Crop/Land-Use and P Index Runoff Potential VL - L; M; H; or VH		Plant Analysis (Y / N)	Plant Analysis & Yield (optional) Use Only When Crop Removal is Required			
N (ppm)	P (ppm)	K (ppm)	Lime (enter amt or leave blank)							% N	% P	% K	Yield Air Dry Production (lbs/ac/yr)
72	30	660			LMU #1	156.0	Silage - Corn21-25T;SG Silage-5-7T M		N				
71.1	41	702			LMU #2	59.0	Silage - Corn21-25T;SG Silage-5-7T M		N				

Solids Application Rate Entries

Solids - Set the Planned Application Rates

Permit #: WQ0010405001

0	Maximum dry tons that may be applied.	Will the planned rates use the Maximum allowed?	YES
		Dry Tons to be used on-site at planned rates	4241

LMU or Field No.	Acres	Crop Management and P1 runoff potential	Current Soil Test P ppm	Crop P_2O_5 Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply	Planned Solids tons/ac	Planned Solids per field (Tons)
LMU #1	156.0	Silage - Corn21-25T;SG Silage-5-7T M	30	145	Annual	19.7	100.0	19.7	3077.1
LMU #2	59.0	Silage - Corn21-25T;SG Silage-5-7T M	41	145	Annual	19.7	100.0	19.7	1163.8
									4240.8

Printed on: 11/27/24 10:35 AM

Plan is based on: 590 -633 Plan V 4.0_5

PO Box 7332
Abilene, Texas 79608
Office (325)692-5878
Fax (325)692-1293

M.E. LOWTHER CONSULTING, LLC

February 13, 2015
April 15, 2019
November 27, 2024

TCEQ Water Quality Assessment Team
ATTN: Agronomy Team
P.O. Box 13087
Austin, Texas 78711-3087

RE: City of Dublin WWTP "Nutrient Management Plan" Sludge Analysis Calculations

Total % Nitrogen => (NO_3-N%) + (NH_3-N%) + (TKN%) => (.0027) + (.0085) + (.18) = .1912 %N*

Total % Phosphorous => 0.470 %P*

Total % Potassium => .230 %K*

**To get Percent from lab analysis use (X mg/Kg)/10000 = X%*

***Please note that these test results are from the 2015 Permit Sludge testing analysis.*

If you have any questions or comments please feel free to contact my office.

Best regards,

STATE OF TEXAS
NOEL COURTS
GEOLOGY
11241
LICENSED
PROFESSIONAL GEOSCIENTIST

Noel Courts, P.G.
License No. 11241
Certified Nutrient Management Specialist
License No. TX20221
M.E. LOWTHER CONSULTING, LLC
Fax: (325)692-1293
Office: (325)692-5878
P.O. Box 7332
Abilene, Texas 79608-7332

NEC

SOIL ANALYSIS REPORT

CLIENT:	M E LOWTHER CONSULTING LLC MITCH LOWTHER PO BOX 7332 ABILENE, TX 79608
45280	

servi tech
www.servitech.com

6921 S. Bell
Amarillo, TX 79109
800.557.7509
806.677.0093
Fax 806.677.0329

LAB NO:	22289 - 22292
INVOICE NO:	173726
DATE RECEIVED:	11/20/2024
DATE REPORTED:	11/21/2024

SOIL ANALYSIS RESULTS FOR: **FIELD ID:**

METHOD USED:

Lab Number	Sample ID	Sample Depth	1:2 Soil-Water Soil pH	Buffer pH	1:2 Soil-Water Sol. Salts mmho/cm	XSL(i) Excess Lime	LOI(r) % Organic Matter	Cd Reduction Nitrate-Nitrogen ppm	lb. N/A	Mehlich 3 ICP Phosphorus ppm P	Potassium ppm K	Sulfur ppm	lb. S/A	Calcium ppm Ca	Magnesium ppm Mg	Sodium ppm Na	Zinc ppm Zn	Iron ppm Fe	Manganese ppm Mn	Copper ppm Cu	Boron ppm B
22289	DUWTTP 06W	0 - 6	7.2		0.55	No	7.7	72.0		30	660	34	61	4970	424	25					
22290	DUWTTP 624W	6 - 24	7.2		0.53	No	8.1	7.4		4	710	36	194	5060	451	28					
22291	DUWTTP 06E	0 - 6	7.3		0.46	Hi	8.1	71.1		41	702	38	68	5070	447	31					
22292	DUWTTP 624E	6 - 24	7.2		0.45	No	8.6	4.1		4	686	37	200	5040	442	27					

FERTILIZER RECOMMENDATIONS: POUNDS ACTUAL NUTRIENT PER ACRE

Lab Number	Sample ID	Crop To Be Grown	Yield Goal	Lime, ECC Tons/A to raise pH to 6.0	6.5	7.0	N	P_2O_5	K_2O	Zn	S	Mn	Cu	MgO	B	Ca	Cl
22289	DUWTTP 06W																
22290	DUWTTP 624W																
22291	DUWTTP 06E																
22292	DUWTTP 624E																

Cation Exchange Capacity

CEC	%H	%K	%Ca	%Mg	%Na
30	0	6	82	12	0
31	0	6	82	12	0
31	0	6	82	12	0
31	0	6	82	12	0

SPECIAL COMMENTS AND SUGGESTIONS:

Lab Number(s): 22289, 22291
Servi-Tech Laboratory fertilizer recommendations were not requested.

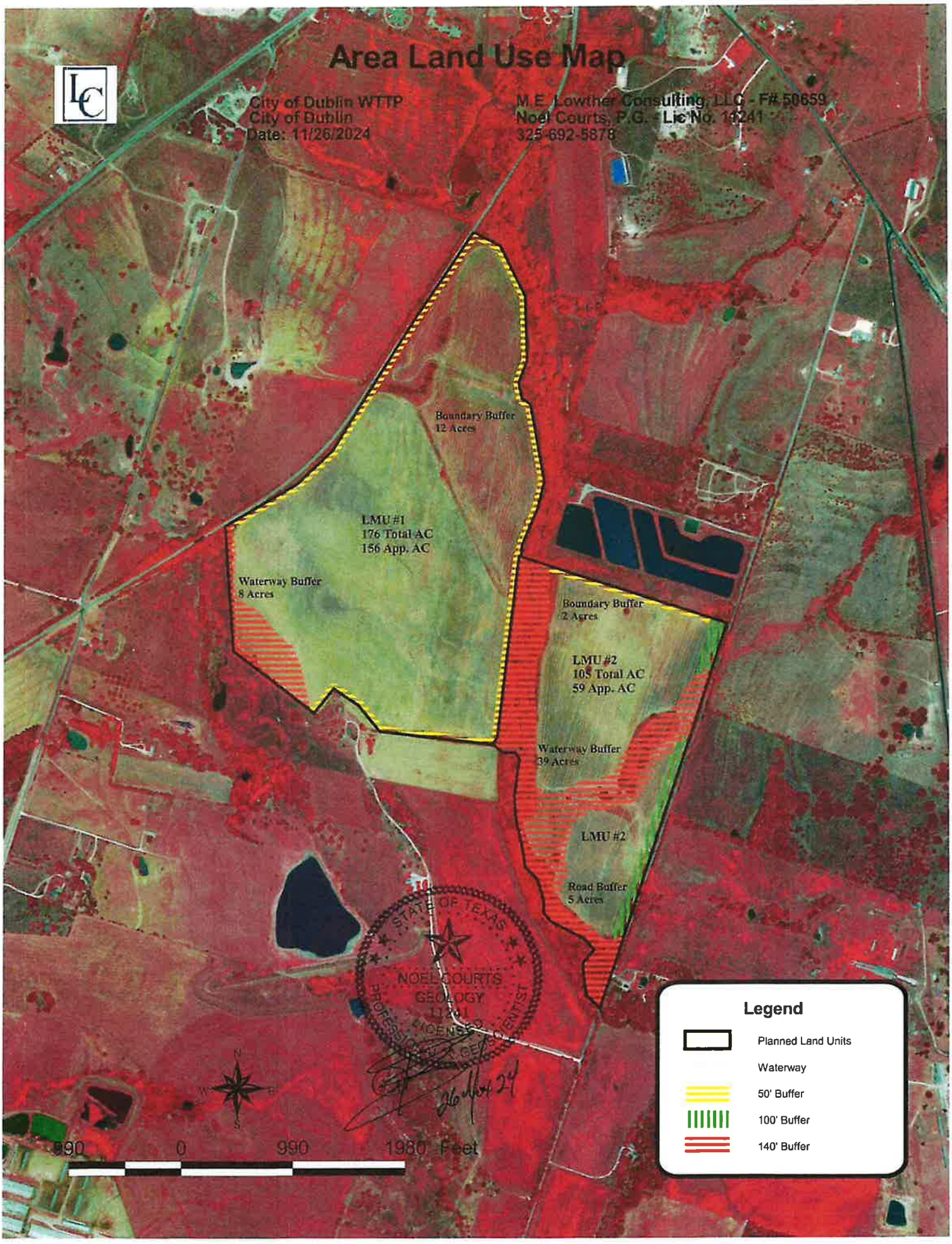
Lab Number(s): 22291
The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

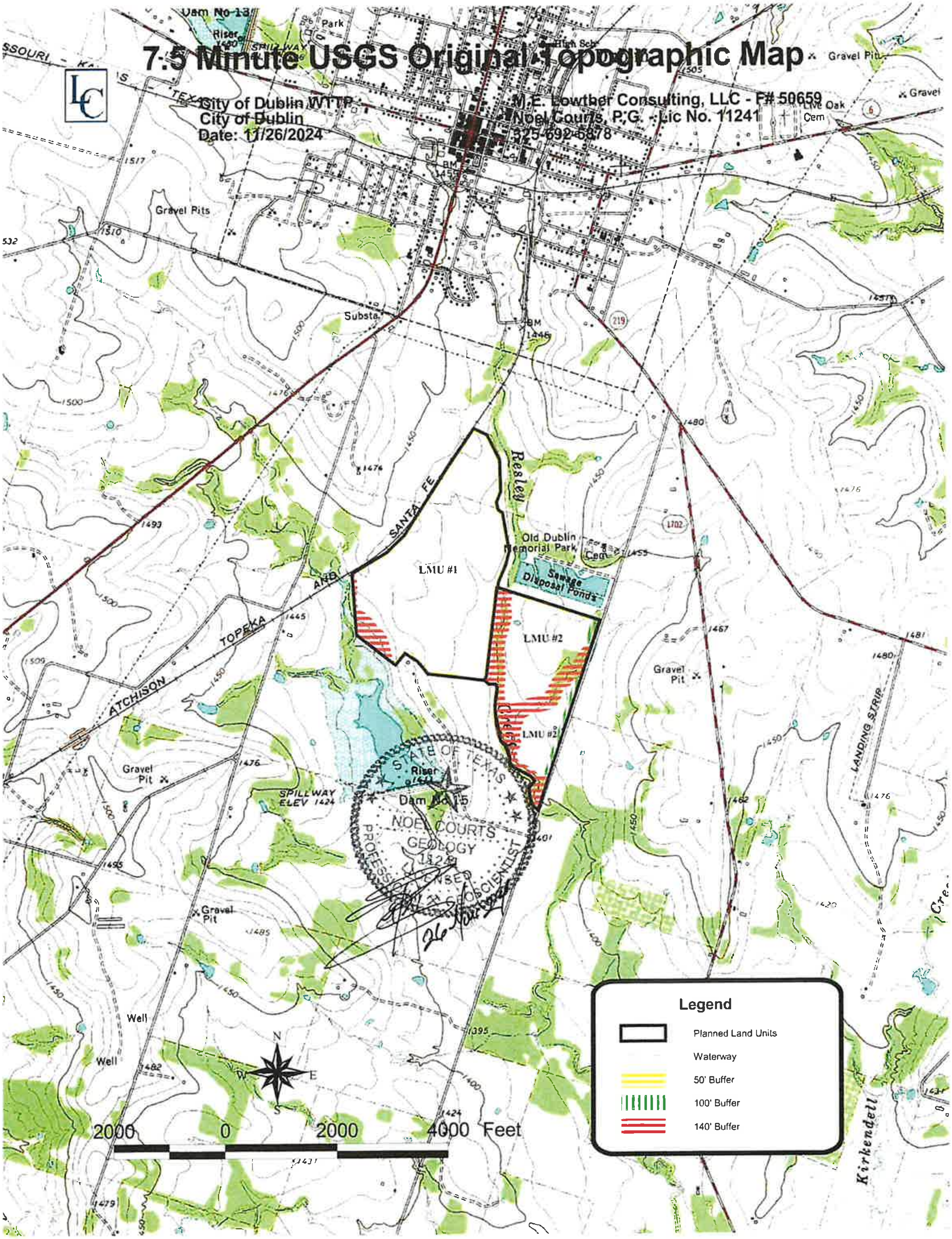
Analyses are representative of the samples submitted

Samples are retained 30 days after report of analysis

Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Amy Meier
Data Review Coordinator

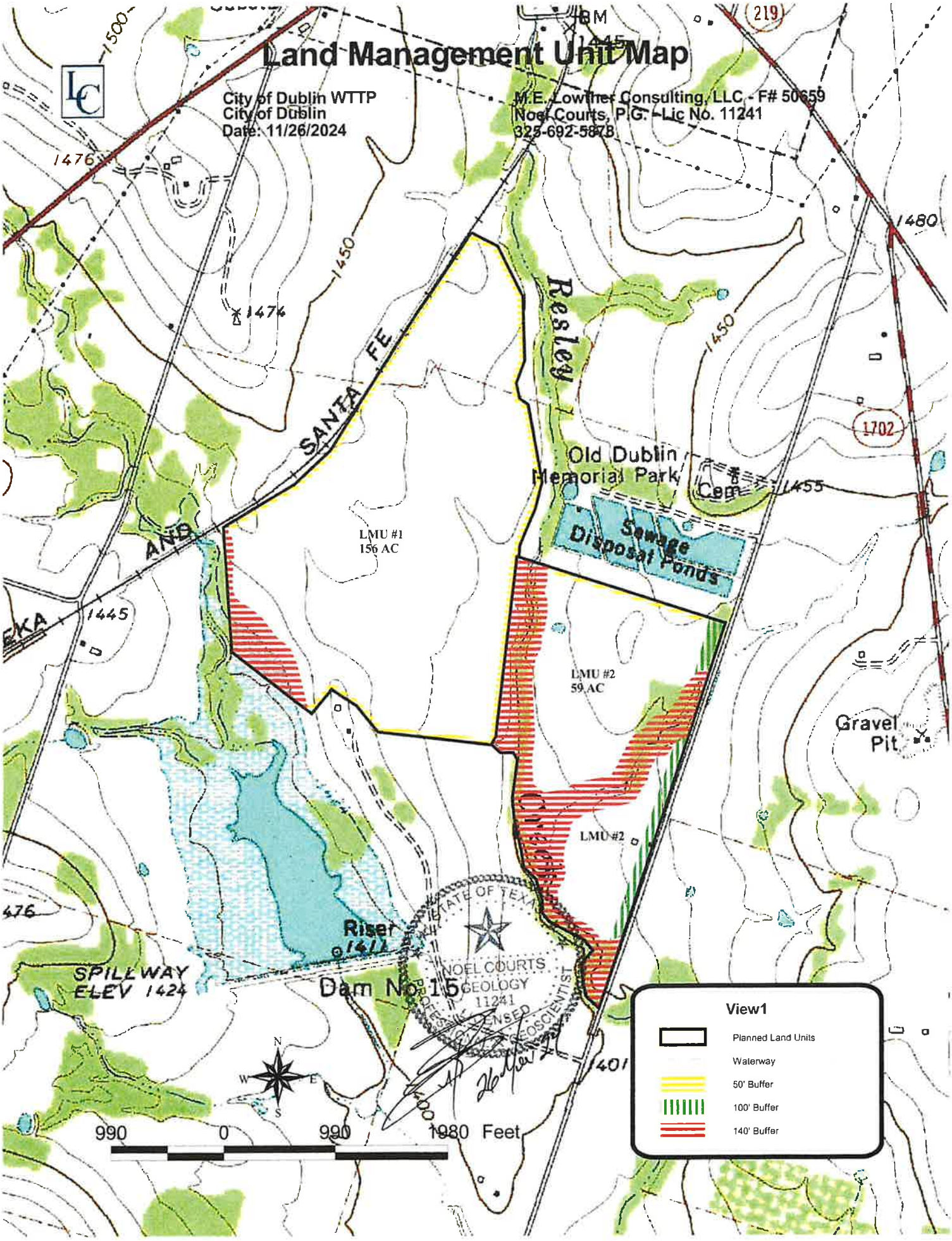

Area Land Use Map
City of Dublin WTTP
City of Dublin
Date: 11/26/2024
M.E. Lowther Consulting, LLC - F# 50659
Noel Courts, P.G. - Lic No. 11241
325-692-5878
Boundary Buffer
12 Acres
LMU #1
176 Total AC
156 App. AC
Waterway Buffer
8 Acres
Boundary Buffer
2 Acres
LMU #2
105 Total AC
59 App. AC
Waterway Buffer
39 Acres
LMU #2
Road Buffer
5 Acres
STATE OF TEXAS
NOEL COURTS
GEOLOGY
LICENSED
PROFESSIONAL GEOLOGIST
990
0
990
1980 Feet
Legend
Planned Land Units
Waterway
50' Buffer
100' Buffer
140' Buffer


7.5 Minute USGS Original Topographic Map
City of Dublin WTTP
City of Dublin
Date: 11/26/2024
M.E. Lowther Consulting, LLC - F# 50659
Noel Courts, P.G. - Lic No. 11241
325-692-6878
LMU #1
LMU #2
LMU #2
Old Dublin Memorial Park Cem
Sewage Disposal Ponds
Resley
SANTA FE
ATCHISON
TOPEKA
AND
Gravel Pits
Gravel Pit
Substa
Park
Dam No 13
Riser
Dam No 15
SPILLWAY ELEV 1424
Well
LANDING STRIP
Kirkendell
Live Oak Cem
STATE OF TEXAS
NOEL COURTS
GEOLOGY
11241
LICENSED
PROFESSIONAL GEOSCIENTIST
2000 0 2000 4000 Feet
N
S
E
W
Legend
Planned Land Units
Waterway
50' Buffer
100' Buffer
140' Buffer

Land Management Unit Map

City of Dublin WTTP
City of Dublin
Date: 11/26/2024

M.E. Lowther Consulting, LLC - F# 50659
Noel Courts, P.G. - Lic No. 11241
325-692-5878



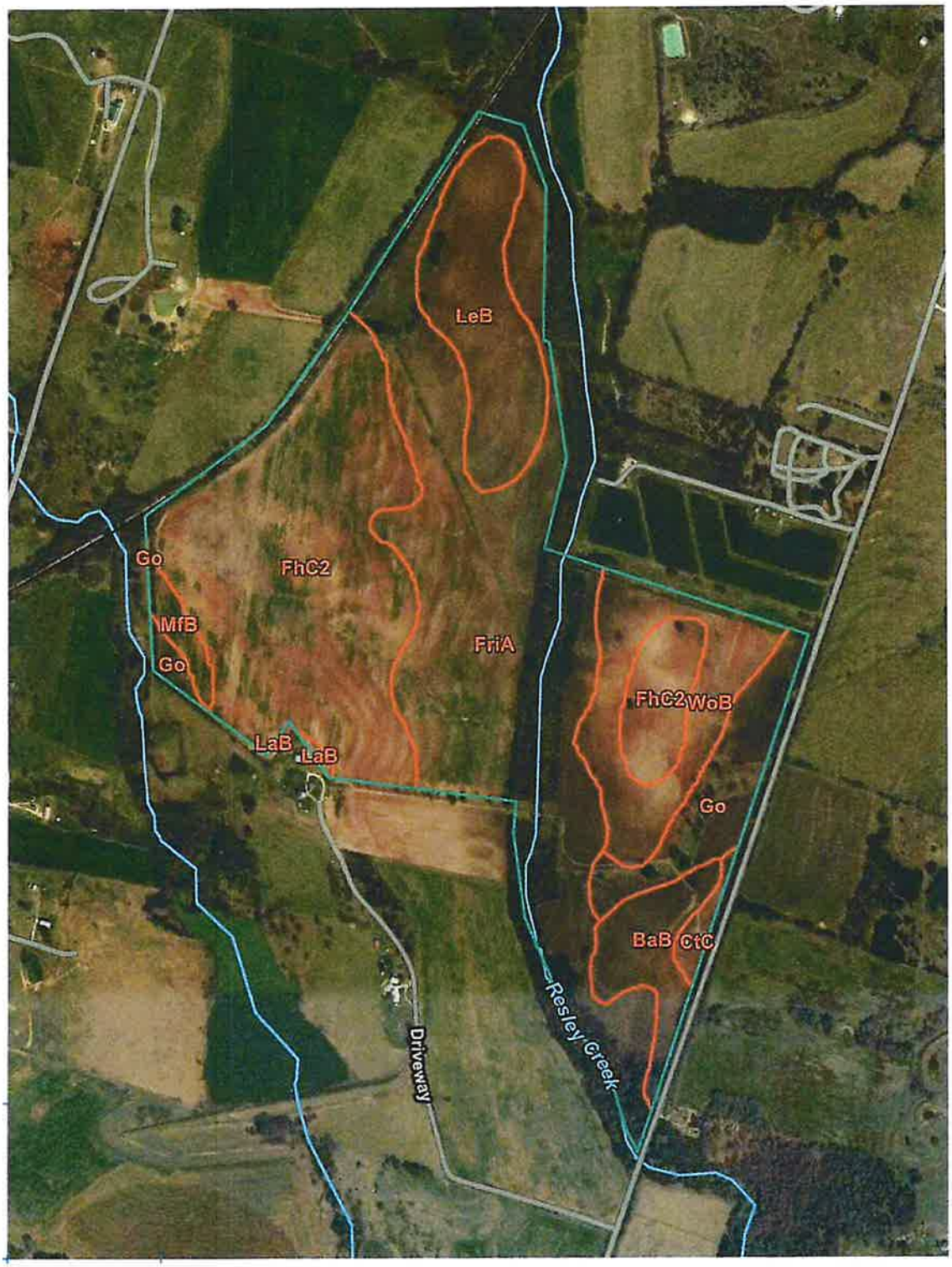
Soil Map—Erath County, Texas
(City of Dublin WTTP)

98° 21' 9" W

98° 19' 56" W

32° 4' 21" N

32° 2' 59" N



Map Scale: 1:12,300 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Erath County, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 26, 2021—Feb 3, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaB	Blanket clay loam, 1 to 3 percent slopes	12.3	4.3%
CtC	Clairette loam, 3 to 5 percent slopes	2.4	0.9%
FhC2	Fairy-Hico complex, 1 to 5 percent slopes, moderately eroded	89.5	31.5%
FrIA	Frio silty clay, 0 to 1 percent slopes, occasionally flooded	104.9	37.0%
Go	Gowen clay loam, occasionally flooded	18.4	6.5%
LaB	Topsey loam, 1 to 3 percent slopes	0.6	0.2%
LeB	Lewisville clay loam, 1 to 3 percent slopes	27.4	9.6%
MfB	May fine sandy loam, 1 to 3 percent slopes	3.6	1.3%
WoB	Windthorst very fine sandy loam, 1 to 5 percent slopes	24.8	8.7%
Totals for Area of Interest		283.9	100.0%

TCEQ Office Use Only
Permit No:
CN:
RN:
Region:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A PERMIT FOR BENEFICIAL LAND USE OF BIOSOLIDS

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

SECTION 1. TYPE OF APPLICATION

☐ New (original, site not permitted)

☐ New (previously permitted but allowed to expire or canceled)

☐ Major Amendment (including renewals with changes to substantive provisions of the permit)

☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)

☒ Renewal

☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

Click here to enter text.

For existing permits:

What is the permit number? WQ0010405001

SECTION 2. APPLICATION FEE

The application fee varies from $1,000 to $5,000 based on the quantity of biosolids to be applied annually. See instructions to determine the appropriate fee.

Provide your payment information below, for verification of payment

Check/Money Order Number: 054876

Check/Money Order Amount: 1,000

Name Printed on Check: City of Dublin Enterprise Fund

SECTION 3. APPLICANT INFORMATION

A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

City of Dublin

B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 600625925

C. What is the contact information for this applicant?

Contact Name: Bobby Mendez

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

Click here to enter text.

B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN Click here to enter text.

C. What is the contact information for this applicant?

Contact Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

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

Application Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Application Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St,

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

Permit Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 7. BILLING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

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

Billing Contact First and Last Name: Bobby Mendez

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

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

SECTION 8. REPORTING CONTACT INFORMATION

This is the person that TCEQ will contact if additional information is needed about the annual biosolids land application reports.

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

Reporting Contact First and Last Name: Cory James

Title: Director of Public Works Credentials: Click here to enter text.

Organization Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: cjames@ci.dublin.tx.us

SECTION 9. NOTICE INFORMATION

A. Individual responsible for publishing the notices in the newspaper

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

First and Last Name: Bobby Mendez

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

Company Name: City of Dublin

Mailing Address: 213 E Blackjack St.

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

Phone Number: 254-445-3331 Fax Number: Click here to enter text.

E-mail Address: bmendez@ci.dublin.tx.us

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

☐ E-mail: Click here to enter text.

☐ Fax Number: Click here to enter text.

☒ Regular Mail:

Mailing Address: 213 E Blackjack St.

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: Bobby Mendez

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

Company Name: City of Dublin

Phone Number: 254-445-3331

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: City Hall

Physical Address of Building: 213 E Blackjack St.

City: Dublin County: Erath

Phone Number: 254-445-3331

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 ☐ No ☒

   (**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? Click here to enter text.

SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: City of Dublin Wastewater Treatment Facility

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 101178044

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?

☒ Yes ☐ No

If **YES**, skip to D. If **NO**, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Click here to enter text.

D. County where the site is located: Erath

E. Latitude: 32.061869 Longitude: -98.340248

F. Landowner Information:

Attach an additional sheet if more than one landowner.

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

First and Last Name: Click here to enter text.

Organization Name: Bar B/Graham Partners LLC

Mailing Address: 1292 CR 498

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: Click here to enter text.

G. County Judge

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

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

First and Last Name: Brandon J. Huckabee

Mailing Address: 100 W Washington

City, State, and Zip Code: Stephenville, TX, 76401

Phone Number: 254-965-1452

Name of County: Erath

SECTION 11. LAND APPLICATION INFORMATION

A. Provide the anticipated date (MM/DD/YY) of the first application of biosolids after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. Click here to enter text.

B. The application area is:

☐ within the city limit of: Click here to enter text.

☒ within the extraterritorial jurisdiction of: City of Dublin

☐ outside the extraterritorial jurisdiction of: Click here to enter text.

C. Types of Waste

Identify the types of waste that will be land applied at this site.

☒ Wastewater Treatment Plant Class B Biosolids

☐ Water Treatment Plant Residuals

☐ Domestic Septage

D. Sources of Biosolids or Residuals

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
Dublin Wastewater Treatment Facility	WQ0010405001	Dublin, TX

E. Property Acreage

Total acreage of the entire property, including the application area and buffer zones: 260.56

F. Application Area Acreage

Total acreage where the biosolids may be applied, excluding the buffer zones: 202

SECTION 12. 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 ☒ No ☐

If yes, provide the name(s) of the former TCEQ employee(s): Charles Keith, retired TCEQ 2006, David Hudson

B. Is the site located on Indian Lands?

Yes ☐ No ☒

C. Is any permanent school fund land affected by this application?

Yes ☐ No ☒

If yes, provide the location, forseeable impacts, and effects this application has on the land(s). Click here to enter text.

D. 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 questions, provide the amount owed, the type of fee or penalty, and an identifying number. Click here to enter text.

SECTION 13. AFFECTED LANDOWNER INFORMATION

A. Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.

Attachment Number: #4

B. Landowner list. Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: #4

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

☐ Read/Writeable CD

☒ 4 sets of mailing labels

D. Landowner data source. Provide the source of the landowners' names and mailing addresses. Erath County CAD

SECTION 14. INSURANCE INFORMATION

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: Click here to enter text.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: Click here to enter text.

SECTION 15. MAPS AND ATTACHMENTS

A. TCEQ Core Data Form

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: #1

B. General Highway (County) Map

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

Attachment Number: #8

C. United States Geological Survey (USGS) Topographic Map

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: #2

D. USDA-NRCS Soil Map

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: #9

E. Federal Emergency Management Agency (FEMA) Map

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and

the appropriate legend.

Attachment Number: #10

F. Nutrient Management Plan

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: #11

G. TCEQ Transporters Registration Approval Documents

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: No public roads used.

H. Soil Analysis

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: #11

H. Biosolids or Residuals Analyses

Attach a laboratory analysis for each source.

Attachment Number: #11

I. Metal and Nutrient Concentrations (Table 1)

Use the laboratory analyses to complete Table 1 for each source.

J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)

If more than one source of biosolids or residuals are land applied, complete Table 2.

K. Agronomic Rate Calculations (Appendix A)

Determine the agronomic application rate by completing and attaching Appendix A.

L. Pathogen Reduction Options (Appendix B)

Identify the pathogen reduction options by completing and attaching Appendix B.

M. Vector Attraction Reduction Options (Appendix C)

Identify the vector attraction reduction options by completing and attaching Appendix C.

N. On-Site Storage (Appendix D)

If on-site storage will occur at this site, complete and attach Appendix D.

LABORATORY ACCREDITATION

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

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

The applicant should review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application.

CERTIFICATION

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

Printed Name: Cory James

Title: Director of Public Works

Signature: _____ Date: 10/4/2024

SITE OPERATOR SIGNATURE PAGE

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

Permit Number: WQ0010405001

Applicant: City of Dublin

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

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

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

Signatory Name: Cory James

Title: Director of Public Works

Signature (use blue ink): Cory James Date: 10/4/2024

SUBSCRIBED AND SWORN to before me by the said Cory James on this 04 day of October, 20 24

My commission expires on the 15 day of March, 20 25

Notary Public

Erath County, Texas

HILDA LOPEZ NOTARY PUBLIC STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974236

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Barbie J. Graham

Title: Lessor

Signature (use blue ink): Barbie J. Graham Date: 11/14/2024

SUBSCRIBED AND SWORN to before me by the said Barbie Graham on this 14th day of November, 2024

My commission expires on the 16th day of July, 2027

(Seal)

Notary Public

ERATH

County, Texas

TASHLI FARRELL WILSON
My Notary ID # 130297383
Expires July 16, 2027

LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0010405001

Applicant: City of Dublin

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of _____ (*identify the type(s) of waste*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Roy K. Graham

Title: Lessor

Signature (use blue ink): Roy K Graham Date: 11/14/24

SUBSCRIBED AND SWORN to before me by the said Roy K. Graham on this 14 day of November, 2024

My commission expires on the 15 day of March, 2025

Melissa Minor
Notary Public

Erath
County, Texas

Seal: MELISSA MINOR NOTARY PUBLIC STATE OF TEXAS EXPIRES 03-15-2025 ID # 132974227

Attachment 1
Individual Information

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

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

Full Legal Name, including middle name: Click here to enter text.

Driver's License or State Identification Number: Click here to enter text.

State that Issued the License or Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

For TCEQ Use Only

Customer Number _____
Regulated Entity Number _____
Permit Number _____

TECHNICAL REPORT
FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

Note: The term "biosolids" also includes the combination of water treatment plant residuals with Class B Biosolids material.

SECTION 1. SITE HISTORY

Have biosolids or septage been previously land applied at this site?

☒ Yes ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous biosolids application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Corn and sorghum are grown on the land.

SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

Corn and sorghum are grown with sludge applied as needed and are plowed into soil. Planting dates are year-round. Application is as needed and evenly distributed over soil with manure spreader.

SECTION 3. SOIL INFORMATION

A. Soil Properties

Complete the table below using the Physical and Chemical Properties and the Engineering Tables found in the USDA Natural Resources Conservation Service (NRCS) soils descriptions.

Map Symbol	Soil Type	Slope	pH	Depth to Bedrock* (inches)	Depth to Groundwater (feet)	Permeability (inches/hour)	Soil Depth** (inches)
DfB	Duffau fine sandy loam, 1 to 3% slopes	1 to 3%	8.4	>80	>6.5	0.20 to 0.57	>24
DuC2	Duffau fine sandy loam, 1 to 3% slopes, eroded	1 to 3%	8.6	>80	>6.5	0.20 to 0.57	>24
Fr	Frio clay loam, occasionally flooded	0 to 1%	8.5	>80	>6.5	0.57 to 1.98	>24
Go	Gowen clay loam, occasionally flooded	0 to 1%	8.7	>80	>6.5	0.57 to 1.98	>24
LaB	Topsey loam, 1 to 3% slopes	1 to 3%	8.6	>80	>6.5	0.20 to 0.57	>24
LeB	Lewisville clay loam, 1 to 3% slopes	1 to 3%	8.4	>80	>6.5	0.20 to 0.57	>24
MfB	May fine sandy loam, 1 to 3% slopes	1 to 3%	8.6	>80	>6.5	0.20 to 0.57	>24

* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.
** If soil depth is less than two feet, provide rationale for using these shallow soils. The rationale should include site specific investigation results.

B. Restrictive Soil Characteristics

In the table below, identify all soils that have the following restrictive characteristics and the management practices to be used.

- Soils with at least an "occasional flooding" classification may flood between 5 to 50 times in 100 years;
- Soil permeability of >6 inches per hour; and
- Seasonal groundwater or groundwater table below the treatment zone at least:
  - 3 feet for soil with permeability of <2 inches per hour

- 4 feet for soil with permeability of 2-6 inches per hour.

Soil Type	Restrictive Characteristic	Best Management Practices
Duffau Fine Sandy Loam	Ridges	Berms

SECTION 4. WELL INFORMATION

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

Well Type (Water Well, Oil Well, Injection Well)	Producing or Non-Producing	Open, Cased, or Capped*	Protective Measures**
Water	Producing	Open	None
See Attachment #3			

* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.
** The following protective measures are required prior to initial biosolids/septage application:

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

SECTION 5. HYDROLOGIC CHARACTERISTICS

Submit information listed below, or equivalent documentation, regarding the hydrologic characteristics of the surface and groundwater at the application site and within one-quarter mile of the site.

- Aquifer identification per Texas Water Development Board Report 345
- Location of the area according to the Geologic Atlas of Texas, published by the University of Texas, Bureau of Economic Geology.
- Any feature that exhibits a direct hydrologic connection between surface and subsurface water.

- List periods of seasonal perched and/or high water table, if any.

  Attachment Number: #2

Table 1
Pollutant and Nutrient Concentrations in Biosolids and Water Treatment Residuals (if applicable)

Complete this table **for each source** of biosolids and residuals.

Facility Name: City of Dublin WWTP

TCEQ Authorization Number: WQ0010405001

POLLUTANT/METAL ANALYSIS

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	3.18	12/04/2024 18:14	2.0	6010B
Cadmium (Cd)	85	-			
Chromium (Cr)	3000	14.8	12/04/2024 18:14	1.0	6010B
Copper (Cu)	4300	6.64	12/04/2024 18:14	2.0	6010B
Lead (Pb)	840	9.30	12/04/2024 18:14	0.500	6010B
Mercury (Hg)	57	-			
Molybdenum (Mo)	75	-			
Nickel (Ni)	420	8.59	12/04/2024 18:14	2.0	6010B
Selenium (Se)	100	-			
Zinc (Zn)	7500	27.6	12/04/2024 18:14	5.0	6010B
PCB (ppm)	50.0 ppm	-			

NUTRIENT ANALYSIS

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.18	11/27/2024	0.60 mg/L	EPA 351.2
Ammonium Nitrogen (NH_4-N)	0.0085	11/27/2024	1.5 mg/kg	SM 4500-NH3 H
Nitrate Nitrogen (NO_3-N)	0.0027	11/27/2024	15.1 mg/kg	EPA 300.0
Total Phosphorus (P)	0.0047	11/27/2024	68.0 mg/kg	SM4500-P E
Total Potassium (K)	0.0023	11/27/2024	445 mg/kg	EPA 3050

TABLE 2
Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration

Complete this table if more than one source is land applied at the site.

Directions:

1. For each pollutant, multiply the Pollutant Concentrations from Table 1 by the estimated number of dry tons you expect to apply from each facility.
2. Sum the individual columns. Enter results in last row of the table.
3. Divide the sum of each column by the dry tons sum (bottom of second column). Enter number in the appropriate Volume Weighted Average Box (row below table).
4. Use these final results to complete Appendix A, Step 1.

TCEQ Auth. Number	Est. Dry Tons*	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH_4-N	NO_3-N	P	K
Sum																
Volume Weighted Average																

*Total estimated dry tons to be land applied from the source facility.

APPENDIX A
AGRONOMIC RATE CALCULATIONS

Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/acre/year.

APPENDIX A, PART 1. APPLICATION RATE

STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS IN LBS/TON

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	0.18	x 20	3.6
Ammonium Nitrogen (NH_4-N)	0.0085	x 20	0.17
Nitrate Nitrogen (NO_3-N)	0.0027	x 20	0.054
Total Phosphorus (P)	0.0047	x 20	0.094
Total Potassium (K)	0.0023	x 20	0.046

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	3.18	x 0.002	0.00636
Total Cadmium (Cd)	-	x 0.002	-
Total Chromium (Cr)	14.8	x 0.002	0.0296
Total Copper (Cu)	6.64	x 0.002	0.01328
Total Lead (Pb)	9.30	x 0.002	0.0186
Total Mercury (Hg)	-	x 0.002	-
Total Molybdenum (Mo)	-	x 0.002	-
Total Nickel (Ni)	8.59	x 0.002	0.01718
Total Selenium (Se)	-	x 0.002	-
Total Zinc (Zn)	27.6	x 0.002	0.0552

**Values from laboratory analysis (dry weight only).

Conversions:

mg/kg ÷ 10,000 = %

ppm = mg/kg

STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Corn

Yield Goal: 411 lb/ yr Nitrogen Requirement, in lb/yr: 203

Cool Season Intended Crop(s): Sorghum

Yield Goal: 411 lb/yr Nitrogen Requirement, in lb/yr: 208

Provide the data source for the nitrogen requirements above.

Nutrient Management Plan

Nitrogen needed by crop:

2A. Total Nitrogen Requirement* 411

2B. Nitrogen available in soil** 10.2

2C. Nitrogen amount still needed

Line 2A – Line 2B 400.8

*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 2B = 2*NO_3-N (ppm)(in the 0-6" soil depth) + 6*NO_3- N(ppm)(in the 6-24" soil depth)

STEP 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN) PROVIDED BY THE BIOSOLIDS AND RESIDUALS

Use the TKN, NH_4-N, and NO_3-N from Step 1.

Organic Nitrogen = TKN – (NH_4-N) – (NO_3-N) 0.1695

Mineralization Rate (%) * 0.30

3A. Organic Nitrogen x Mineralization Rate 0.05085

3B. Ammonium Nitrogen = (NH_4-N) x V 0.0085

V = 0.5 if biosolids are left on soil surface

V = 1.0 if biosolids are worked into the soil

3C. Nitrate Nitrogen (NO_3-N) 0.0027

3D. Total PAN = (Line 3A + Line3B + Line 3C)= 0.06205

*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Biosolids	40 %
Aerobically Digested Biosolids	30 %
Anaerobically Digested Biosolids	20 %
Composted Biosolids	10 %

STEP 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED ON CROP NITROGEN NEEDS (SAR_N)

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 400.8

4B. Total PAN (lbs/ton)

Enter amount from Step 3D. 0.06205

4C. Biosolids Application Rate (BAR_N) (tons/acre/year)

Line 4A ÷ Line 4B 6459.30

STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR_M)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals In Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at BAR_N (lbs/acre/yr) (C x SAR_N)	E Biosolids Applied Yearly at BAR_M (tons/acre/yr) (B ÷ C)	F Max Loading Rate (tons/acre) (A ÷ C)
Arsenic	36	1.8	0.00636	41.08	283.01	5660.37
Cadmium	35	1.7	-	-	-	-
Chromium	2677	134	0.0296	191.19	4527.02	1182.43
Copper	1339	67	0.01328	85.77	5045.18	100828.31
Lead	268	13	0.0186	120.14	698.92	14408
Mercury	15	0.76	-	-	-	-
Molybdenum	Monitor	Monitor	-	-	-	-
Nickel	375	18.7	0.01718	110.97	1088.47	21827.70
Selenium	89	4.5	-	-	-	-
Zinc	2500	125	0.0552	356.55	2264.49	45289.85
Other						

Note: For each metal, if the value in column B is greater than the value in column D (B>D), the BAR_N dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than the value in column D (B<D), then the BAR_M dictates the maximum biosolids application rate and the value of E = B ÷ C.

STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1182.43

6B. Previous applications of biosolids (tons/acre) 15.6

6C. Remaining biosolids application rate to reach metal limits

Line 6A – Line 6B (tons/acre) 1166.83

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)

283.01

6E. Years remaining to reach the maximum cumulative loading

Line 6C ÷ Line 6D (years) 4.12

APPENDIX A, PART 2: SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text. Nitrogen Requirement, in lb/yr: Click here to enter text.

Cool Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text. Nitrogen Requirement, in lb/yr: Click here to enter text.

Provide the data source for the nitrogen requirements.

Click here to enter text.

Nitrogen needed by crop:

1A. Total Nitrogen Requirement* Click here to enter text.

1B. Nitrogen available in soil** Click here to enter text.

1C. Nitrogen amount still needed

Line A - Line B Click here to enter text.

*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

**Line 1B = 2*NO_3-N (ppm)(in the 0-6" soil depth) + 6*NO_3- N(ppm)(in the 6-24" soil depth)

STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

AAR = N ÷ 0.0026

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C Click here to enter text.

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B Click here to enter text.

APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

Biosolids:

A. Biosolids Application Rate (tons/acre/year) Click here to enter text.

B. Percentage of plant nutrient supplied by the biosolids

= Click here to enter text. ÷ 100 Click here to enter text.

C. Multiple Line A by Line B (tons/acre/year) Click here to enter text.

Domestic Septage:

A. Biosolids Application Rate (tons/acre/year) Click here to enter text.

B. Percentage of plant nutrient supplied by the biosolids

= Click here to enter text. ÷ 100 Click here to enter text.

C. Multiple Line A by Line B (tons/acre/year) Click here to enter text.

APPENDIX B
PATHOGEN REDUCTION REQUIREMENTS

For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?** (Yes/No/NA)
Example WQ11280-001	Option 1: Density of Fecal Coliform	300,000 cfu/g	12/2/98	NA
WQ0010405001	Option 1: Density of Fecal Coliform	31.7 cfu/ g	12/11/2024	NA
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			

*Applicable to Option 1 only.
**Applicable to Option 2a – f.

If Other is selected as the Alternative Used, please explain: Click here to enter text.

APPENDIX C
VECTOR ATTRACTION REDUCTION REQUIREMENTS

For each source, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

TCEQ Permit Number	Vector Attraction Reduction Alternative Used*	Monitoring Criteria and results needed for alternative
Example WQ11280-001	Option 10: Incorporate within 6 hrs	Visual inspection of area after tilling
Example WQ13450-003	Option 4: SOUR <=1.5 mg 02/hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
WQ0010405001	Option 10. Incorporate within 6 hrs	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	

*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

APPENDIX D
ON-SITE STORAGE

If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of biosolids or septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per 30 TAC §312.50 unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. Materials cannot be treated without proper authorization from the TCEQ.

A. Provide a complete description of operational plans for the temporary storage, including all steps to be taken to control odors, vectors and other nuisance conditions.
Click here to enter text.

B. The location of the temporary storage area(s) must be accurately shown on the USGS topographic map submitted with the application, including all main features of the storage area(s) (e.g. berms, tanks, pads, liners, storm water retention, etc.).

C. Provide a copy of the liner and storage tank certification as per 30 TAC §312.50(a)(4) or 312.50(a)(8).

Attachment Number: Click here to enter text.

D. Describe the proposed spill prevention and cleanup methods.
Click here to enter text.

E. Provide a certification that the berm(s) will hold the required volume(s) without discharging as per 30 TAC §312.50 (a)(7).

Attachment Number: Click here to enter text.

F. Describe the method for stormwater runoff collection and disposal.
Click here to enter text.

G. Describe methods to be used to ensure no loads of biosolids remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by 30 TAC §312.50), when needed.
Click here to enter text.

INSTRUCTIONS FOR PERMIT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

GENERAL INFORMATION

Purpose of the Application

This form is to be used to:

- Permit a new site for beneficial land use of Class B biosolids;
- Submit a Major Amendment to change acreage or to make any other substantive change to a permitted site for beneficial land use of Class B biosolids; or
- Renew an existing permitted site for beneficial land use of Class B biosolids.

NOTE: If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of Class B biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

Who Should Apply?

This application must be submitted by the site operator. If there is more than one operator, then a co-applicant is required.

When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

Where to Send the Application Form

One original and three copies of the application, including attachments, must be provided to the address below:

Regular U.S. Mail:
TCEQ
ARP Team, MC 148
PO Box 13087
Austin TX 78711-3087

Express Mail or Hand Delivery:
TCEQ
ARP Team, MC 148
Building F Room 2101

12100 Park 35 Circle
Austin TX 78753

TCEQ Contact List

Permit Information and Application Forms:	512-239-4671
Technical Information, Land ApplicationTeam, Attn: Biosolids Group:	512-239-4671
Environmental Law Division:	512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM

Section 1. Type of Application

Select the appropriate type of application.

For amendment applications, describe the proposed changes.

For existing permits, provide the TCEQ permit number.

Section 2. Application Fee

The permit application fee varies from $1,000 to $5,000, based on the quantity of biosolids to be applied annually under the permit.

Quantity of Biosolids Applied Annually	Application Fee
2,000 dry tons or less	$1,000
2,001 to 5,000 dry tons	$2,000
5,001 to 10,000 dry tons	$3,000
10,001 to 20,000 dry tons	$4,000
20,001 dry tons or more	$5,000

Application fees must be paid by check or money order made payable to the Texas Commission on Environmental Quality. Fees are to be sent under separate cover making reference to the type of application, name of applicant, and permit number of existing permit, and mailed to:

TCEQ
Revenues Section (MC 214)
P.O. Box 13088
Austin, Texas 78711-3088

To verify receipt of payment or any other questions you may have regarding payment of fees to the TCEQ, you may call the Revenues Section, Cashiers Office at (512) 239-0357.

Section 3. Applicant Information

Provide the full legal name of the site operator.

If the site operator is an existing TCEQ customer, provide the customer number (CN) for the site operator. The Customer Number is available at the following website: http://www15.tceq.texas.gov/crpub/. If the site operator is not an existing TCEQ customer, leave blank.

Provide the following contact information for the site operator: mailing address, phone number, fax number, and email address.

Section 4. Co-Applicant Information

If there is more than one operator, then a co-applicant is required. Provide the full legal name of the co-applicant.

If the co-applicant is an existing TCEQ customer, provide the customer number (CN) for the co-applicant. The Customer Number is available at the following website: http://www15.tceq.texas.gov/crpub/. If the co-applicant is not an existing TCEQ customer, leave blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number, and email address.

Explain the need for a co-applicant.

Section 5. Application Contact Information

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner.

Section 6. Permit Contact Information

Provide the name and contact information for two individuals that TCEQ can contact if additional information is needed during the term of the permit.

Section 7. Billing Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices.

Section 8. Reporting Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual biosolids land application reports.

Section 9. Notice Information

A. Individual publishing the notices

Provide the name, company name, mailing address, telephone number and fax number of the person that will publish the public notices required during the processing of the application. Only one name can be provided. This individual will be contacted to publish the required public notices in a newspaper of the largest general circulation in the county where the facility is/will be located. This person must be available during the application processing since the first public notice. The "Notice of Receipt of Application and Intent to Obtain a Water Quality Permit" must be published within 30 days of the application being declared Administratively Complete.

B. Method of Receiving Notice Package

Provide the method of receiving the required public notice information. When the application is declared Administratively Complete, the notice package will be sent via the method selected. The notice package includes the TCEQ declaration of completeness, a notice ready for publication, instructions for publishing the notice, a publication affidavit, and a public notice verification form.

C. Contact Person in the Notice

Provide the person's name, company name, mailing address, telephone number and fax number of the one individual that will be identified as the notice contact in the two public notices that are published as part of the permitting process. This individual may be contacted by the public to answer questions about all aspects of the permit application.

D. Public Viewing Location

Provide the name and physical address for the public place where the complete application, draft permit, and Technical Summary/Fact Sheet will be made available for viewing and copying by the general public. Please verify with the proper authority they will make the application available for public viewing and copying. The address must be a physical address. Post office box addresses are not acceptable. The public place must be located within the county in which the facility is/will be located. If the facility is located in more than one county, a public viewing place for each county must be provided.

E. Bilingual Notice Requirement

Bilingual notice may be required for new, major amendment, and renewal applications if an elementary school or middle school nearest to the facility is required to make a bilingual education program available to qualifying students.

The applicant is required to call the bilingual/ESL coordinator at the nearest elementary and middle schools to obtain answers to questions 1. – 4. These questions will determine if an alternative language notice is required.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

Section 10. Regulated Entity (Site) Information

A. Provide the name of the site as known by the public in the area where the site is located.

B. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: http://www15.tceq.texas.gov/crpub/. If the site is not currently regulated by TCEQ, leave blank.

C. If the location in the existing permit is not correct or if this is a new site, provide the physical address of the site. If a physical address is not available, provide a location description.

D. Provide the county in which the site is located.

E. Provide the latitude and longitude for the site.

F. Provide the name and contact information for the landowner of the application site.

G. Provide the name and contact information for the county judge in each county where the site is located. Attach an additional sheet if the site is located in more than one county.

Section 11. Land Application Information

If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

A. Provide the anticipated date that you plan to start applications on this site. This date must be at least 330 days from the date TCEQ receives this application form.

B. Indicate by a checkmark if the beneficial land use area is within the city limits, within the extraterritorial jurisdiction, or outside the extraterritorial jurisdiction of a city. Provide the city or municipality name in the space provided.

C. Identify the types of wastes that will be land applied at this site.

D. For each source, provide the facility name, TCEQ authorization number, and the location. Add additional rows to the table, if necessary.

E. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.

F. Provide the total acreage where biosolids may be applied. Do not include buffer zones.

NOTE: A minimum buffer of 500 feet is required for water wells and surface water when land application of Class B Biosolids occurs in a county that borders the Gulf of Mexico (Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties).

Section 12. Miscellaneous Information

A. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.

B. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the Land Application Team, Attn: Biosolids Group at 512-239-4671.

C. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.

D. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties.

The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment: https://www.tceq.texas.gov/agency/fees/delin/index.html. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

NOTE: TCEQ will not declare any application administratively complete or issue a permit if the applicant or co-applicant is delinquent on a fee or penalty.

Section 13. Affected Landowner Information

A. Attach a landowner map or drawing that includes a scale, the applicant's property boundaries, the application area boundaries, the approximate property boundaries of all landowners located within 1/4 mile of the property boundaries. Assign a letter or number to each landowner.

B. Attach a list of landowners that live on land within 1/4 mile of the property boundaries. The list must include the landowner's name and address, and include a cross-reference to the letter or number identified on the landowner map. The applicant may choose to attach a list of all landowners within 1/4 mile of the property boundary, regardless of whether the landowner lives on the land.

C. Identify the format of the landowners list.

D. Provide the source of the landowner's names and mailing addresses. Sources may include City or County Tax Records.

Section 14. Insurance Information

This information is <u>not</u> required for an applicant that is a political subdivision (e.g., city, county, state agency, water district, etc.).
Note: The insurance policies required by this section must be maintained for the duration of the permit which is normally issued for a term of five years.

A. Commercial Liability Insurance

Attach a copy of the certificate of insurance in regard to commercial liability, reflecting total coverage of not less than $3 million per occurrence with an annual

aggregate of not less than $3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9145 (relating to Certificate of Insurance for Commercial Liability) or an endorsement worded identically to the wording specified in 30 TAC §37.9150 (relating to Endorsement for Commercial Liability). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

B. Environmental Impairment Insurance

Attach a copy of the certificate of insurance in regard to environmental impairment, reflecting total coverage of not less than $3 million per occurrence with a policy limit of not less than $3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

Section 15. Maps and Attachments

A. Complete and submit the TCEQ Core Data Form (TCEQ-10400).

B. Submit an original General Highway (County) Map showing all boundaries of the site area and all areas within 1000 feet of the area boundaries. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: http://www.txdot.gov/travel/county_grid_search.htm

C. Submit a full-sized USGS topographic map (1:24,000 scale). These are available by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:

- the boundaries of the property(s) being permitted;
- the boundaries of the application area within the property boundaries;
- all areas within ¼ mile of the site (if the site is on the border of the USGS map, the adjoining map is also required); and
- the location of all wells, springs, public water supply intakes, water treatment plants, potable water storage facilities, and wastewater treatment plants on-site and within ¼ mile of the application area (including off-site).

If the land application unit boundaries cannot fit or are too small to depict on the required USGS topographic map, a zoomed-in version must be submitted on a separate 81/2 X 12 map or larger. This map may be a zoomed-in version of the topographic map or an accurately self-generated map.

D. Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries, the soil legend, necessary interpretative information, and the location of each grab sample of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.

E. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries, the surrounding area within ¼

mile of the property boundaries, and the appropriate legend.

F. Submit a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the practice standards of the USDA-NRCS.

G. Submit a copy of the TCEQ transporters registration approval documents.

H. Attach the soil laboratory analysis for the application area. Additional information about collecting and analyzing the soil samples is available at the end of these instructions.

I. Attach a laboratory analysis for each source. Additional information about testing is available at the end of these instructions.

J. Metal and Nutrient Concentrations (Table 1). Use the laboratory analyses to complete Table 1 for each source.

K. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2). If more than one source of is land applied, complete Table 2.

L. Agronomic Rate Calculations (Appendix A). Determine the agronomic application rate by completing and attaching Appendix A.

M. Pathogen Reduction Requirements (Appendix B). Identify the pathogen reduction alternative for each source by completing and attaching Appendix B.

N. Vector Attraction Reduction Requirements (Appendix C). Identify the vector attraction reduction alternative for each source by completing and attaching Appendix C.

O. On-Site Storage (Appendix D). If on-site storage will occur at the site, complete and attach Appendix D.

Signature Page

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to

sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

SOIL TESTING INFORMATION

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

Parameter (7)		**0- 6 "**	**6 -24"**
Nitrate Nitrogen (NO_3-N, mg/kg)	(1)	x	x
Ammonium Nitrogen (NH_4-N, mg/kg)	(1)	x	x
Total Kjeldahl Nitrogen (TKN, mg/kg)	(2)	x	x
Phosphorus (plant available, mg/kg)	(3)	x	x
Potassium (plant available, mg/kg)	(3)	x	x
Sodium (plant available, mg/kg)	(3)	x	x
Magnesium (plant available, mg/kg)	(3)	x	x
Calcium (plant available, mg/kg)	(3)	x	x
Electrical Conductivity	(4)	x	x
Soil Water pH (S.U.)	(5)	x	x
Total Arsenic (mg/kg)	(6)	x	N/A
Total Cadmium (mg/kg)	(6)	x	N/A
Total Chromium (mg/kg)	(6)	x	N/A
Total Copper (mg/kg)	(6)	x	N/A
Total Lead (mg/kg)	(6)	x	N/A
Total Mercury (mg/kg)	(6)	x	N/A
Total Molybdenum (mg/kg)	(6)	x	N/A
Total Nickel (mg/kg)	(6)	x	N/A
Total Selenium (mg/kg)	(6)	x	N/A
Total Zinc (mg/kg)	(6)	x	N/A

1. Determined in a 1 N KCl soil extract (http://soiltesting.tamu.edu/webpages/swftlmethods1209.html).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

Please be advised that the maximum acceptable soil concentrations of metals are listed below. These rates are based on the maximum cumulative loading rates found in 30 TAC §312.43 Table 2- Cumulative Metal Loading Rate.

Metal	**Soil Concentration Limit (mg/kg)**
Total Arsenic	20.5
Total Cadmium	19.5
Total Chromium	1500
Total Copper	750
Total Lead	150
Total Mercury	8.5
Total Molybdenum	Monitor
Total Nickel	210
Total Selenium	50
Total Zinc	1,400

BIOSOLIDS AND RESIDUALS TESTING INFORMATION

Testing Parameters (dry weight basis) for
Class B Biosolids and Water Treatment Plant Residuals

Nutrients (%)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen Ammonium-Nitrogen Nitrate-Nitrogen Total Phosphorus Total Potassium	Total Arsenic Total Cadmium Total Chromium Total Copper Total Lead Total Mercury Total Molybdenum Total Nickel Total Selenium Total Zinc	Total PCBs

1. If accepting from multiple sources,
   a) perform a new analysis on the mixed material if blended before land application, or
   b) use Table 2 of the application form to determine the volume weighted average (mass balance) which will accurately reflect the amount of metals contributed by each facility.
2. The metal and nutrient tests shall be used to calculate the Maximum Biosolids Application Rate and Site Life in Appendix A of the application form. These tests and calculations will also be required in an annual report for the permitted site.
3. Copies of all laboratory test data with Quality Control (QA/QC) and Chain of Custody sheets must be kept on file at the site operator's place of business for at least five (5) years and can be requested by TCEQ at any time.
4. Include the most recent full Toxicity Characteristic Leaching Procedure (TCLP) analysis for each wastewater treatment plant source (Appendix E).

Maximum Metal Loadings & Concentrations

If background soil concentrations exceed the values listed below, then land application is only possible if biosolids concentrations are below the concentrations found in Table 3 of 30 TAC §312.43(b)(3).

If the concentration of any metal in the biosolids exceeds the metal ceiling concentration, then the land application of that biosolids is prohibited.

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Arsenic	36	41	75
Cadmium	35	39	85
Chromium	2,677	1,200	3,000

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Copper	1,339	1,500	4,300
Lead	268	300	840
Mercury	15	17	57
Molybdenum	Monitor	Monitor	75
Nickel	375	420	420
Selenium	89	36	100
Zinc	2,500	2,800	7,500

APPENDIX E

Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels

METALS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Arsenic	5.0	D004	7061
Barium	100.0	D005	7080
Cadmium	1.0	D006	7130
Chromium	5.0	D007	7190
Lead	5.0	D008	7420
Mercury	0.2	D009	7471
Selenium	1.0	D010	7741
Silver	5.0	D011	7760

VOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Benzene	0.5	D018	8260B
Carbon Tetrachloride	0.5	D019	8260B
Chlorobenzene	100.0	D021	8260B
Chloroform	6.0	D022	8260B
1,4-Dichlorobenzene	7.5	D027	8260B
1,2-Dichloroethane	0.5	D028	8260B
1,1-Dichloroethylene	0.7	D029	8260B
Methyl Ethyl Ketone	200.0	D035	8260B
Tetrachloroethylene	0.7	D039	8260B
Trichloroethylene	0.5	D040	8260B
Vinyl Chloride	0.2	D043	8260B

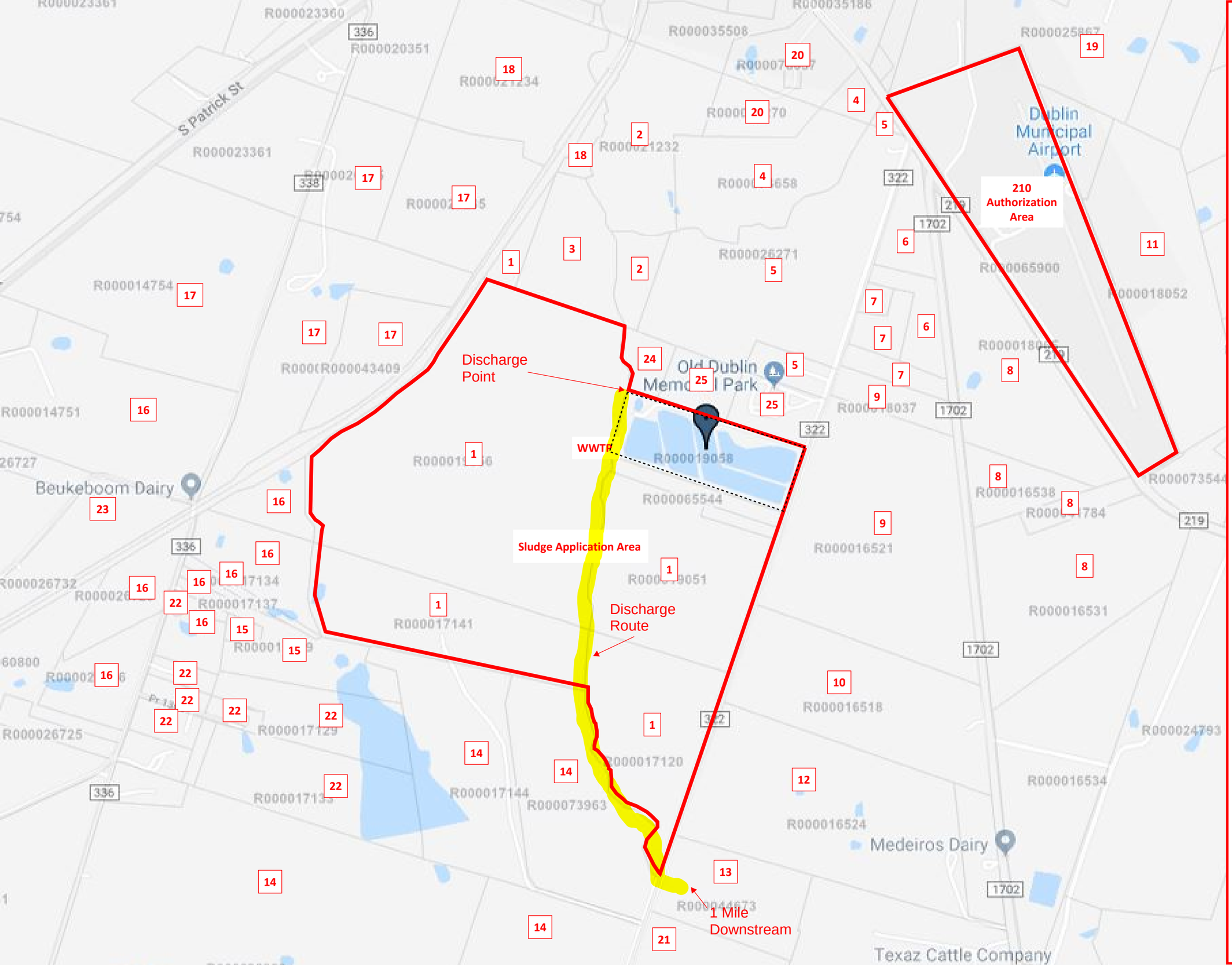
SEMIVOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
o-Cresol *	200	D023	8270C
m-Cresol *	200	D024	8270C
p-Cresol *	200	D025	8270C
Cresol *	200	D026	8270C
2,4-Dinitrotoluene	0.13	D030	8270C
Hexachlorobenzene	0.13	D032	8270C
Hexachlorobutadiene	0.5	D033	8270C
Hexachloroethane	3.0	D034	8270C
Nitrobenzene	2.0	D036	8270C
Pentachlorophenol	100.0	D037	8270C
Pyridine	5.0	D038	8270C
2,4,5-Trichlorophenol	400.0	D041	8270C
2,4,6-Trichlorophenol	2.0	D042	8270C

ORGANOCHLORINE PESTICIDES	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Chlordane	0.03	D020	8081A
Endrin	0.02	D012	8081A
Heptachlor (and its Epoxide)	0.008	D031	8081A
Lindane	0.4	D013	8081A
Methoxychlor	10.0	D014	8081A
Toxaphene	0.5	D015	8081A

CHLOROPHENOXY ACID HERBICIDES	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
2,4-D	10.0	D016	8150
2,4,5-TP (Silvex)	1.0	D017	8150

* If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used.

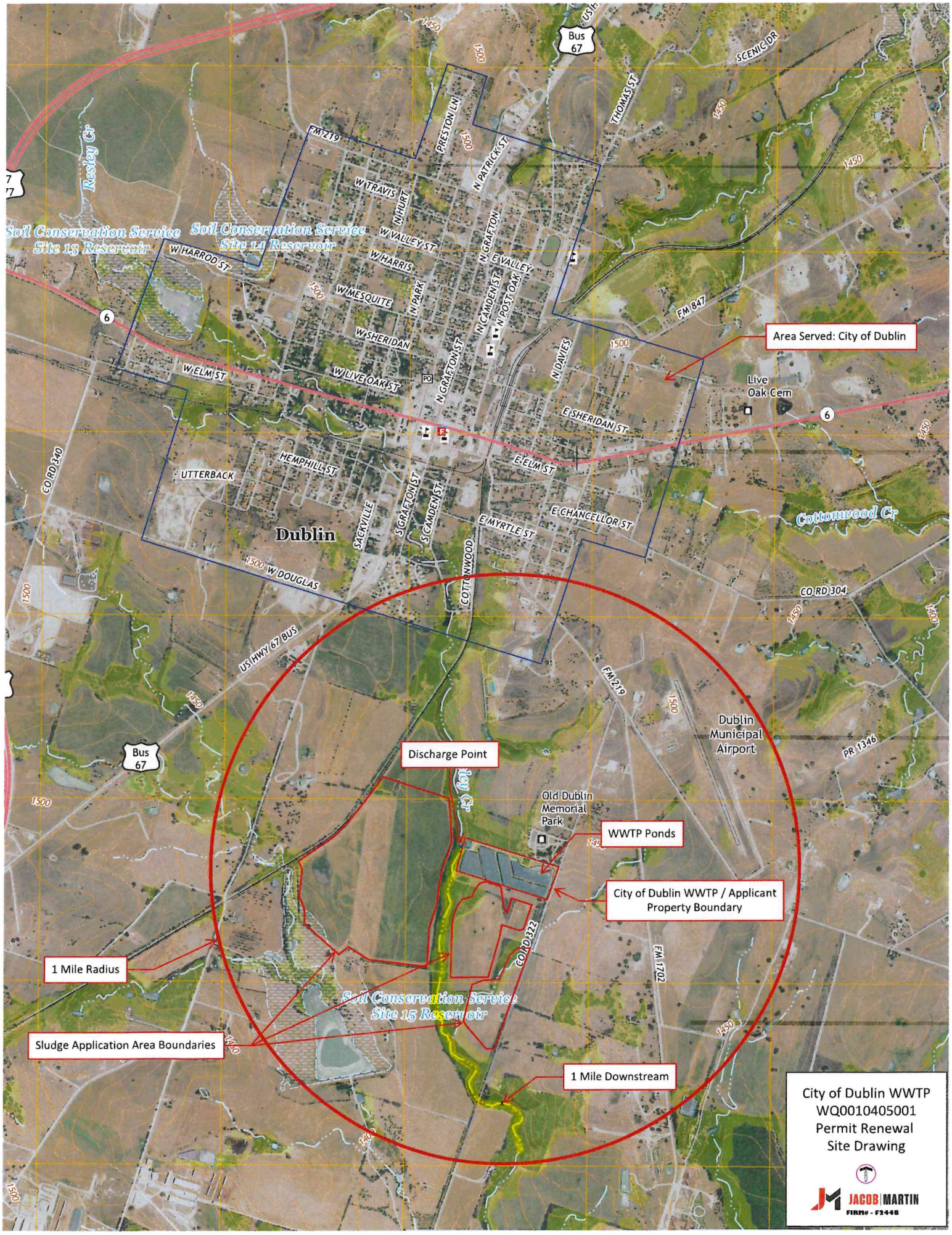
Reference: 40 CFR 261, Appendix II, 1993 ed., as amended by 58 FR 46040, August 31, 1993.



1.Bar B/ Graham Partners LLC
1292 CR498 Stephenville, TX 76401
2.Paul Bradberry
621 S Patrick Dublin, TX 76446
3.Rebecca Prince
PO Box 384 Dublin, TX 76446
4.Ronnie and Melanie Belew
6527 CR 397 Dublin, TX 76446
5.Lonlee and Janey Laquey
120 CR322 Dublin, TX 76446
6.Bradberry Living Trust, Charlie Nix Bradberry and Susan Co-Trustees
1040 N Post Oak, Dublin, TX 76446
7.Stephen Barbee
669 CR322 Dublin, TX 76446
8.Rodney Mcneal
405 PR 1375 Dublin, TX 76446
9.Dublin Auction Sale
434 Edward Dr Dublin, TX 76446
10.Alan and John Austin
1503 Tulip Dr Arlington, TX 76013
11.Elpidio and Ilda Luna
1301 S FM219 Dublin, TX 76446
12.John Batla
PO Box 901 Columbus, TX 78934
13.Christy Tyler and David Segit
2875 CR 322 Dublin, TX 76446
14.Frans Beukeboom
1021 PR1369 Dublin, TX 76446
15.Roy Tyus
2415 CR336 Dublin, TX 76446
16.Paul Tyus
PO Box 182 Paluxy, TX 76467
17.David Fritts
PO Box 11 Dublin, TX 76446
18.Alynn Nance
625 SW US377 Dublin, TX 76446
19.Michael Harris
1554 CR304 Dublin, TX 76446
20.Melvin and Jaquelyn Mcmullen
1001 S Liberty Dublin, TX 76446
21.David Quenzer Living Trust, James Bryan Fields
3501 CR322 Dublin, TX 76446
22.Joyce Swindle
3408 Hardeman Fort Worth, TX 76119
23.Lou Ann Huckaby
15672 S US377 Dublin, TX 76446
24.Rebecca Nan Prince
PO Box 384 Dublin, TX 76446
25.Old Dublin Memorial Park Cemetery
PO Box 123 Dublin, TX 76446

City of Dublin WWTP
WQ0010405001
Permit Renewal
Landowners Map

JACOB MARTIN
3465 CURRY LANE
ABILENE, TEXAS 79606
325.695.1070
1508 SANTA FE DR, SUITE 204
WEATHERFORD, TEXAS 76086
817.594.9880
FIRM # F-2448



City of Dublin WWTP
WQ0010405001
Permit Renewal
Site Drawing

JACOB | MARTIN
FIRM# - F2448