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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

August 14, 2023

TO: Persons on the attached mailing list.

RE: Greenway Ag, LLC, Steven Lee Kubena, and Alyssa Leanne Johnson  
Registration No. 711042

This letter is your notice that the Texas Commission on Environmental Quality (TCEQ) executive director (ED) has acted on the above-named application. According to 30 Texas Administrative Code (TAC) Section 50.135 the ED's action became effective on July 20, 2023, the date the ED signed the permit or other action unless otherwise specified in the permit or other action. Enclosed is a copy of the issued registration and technical summary, which includes the ED's response to comments.

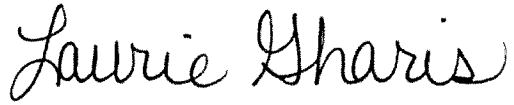
For certain matters, a **motion to overturn**, which is a request that the commission review the ED's action on an application, may be filed with the chief clerk. Whether a motion to overturn is procedurally available for a specific matter is determined by Title 30 of the Texas Administrative Code Chapter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

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

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

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

Sincerely,

A handwritten signature in cursive script that reads "Laurie Gharis". The letters are fluid and connected, with a prominent loop on the 'L' and a long tail on the 's'.

Laurie Gharis  
Chief Clerk

LG/erg

Enclosure

MAILING LIST  
for  
Greenway Ag, LLC, Steven Lee Kubena, and Alyssa Leanne Johnson  
Registration No. 711042

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See attached list.

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via electronic mail:

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FOR THE CHIEF CLERK  
via electronic mail:

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

## DOMESTIC SEPTAGE REGISTRATION

**I. Registration No:** 711042

**II. Sludge Registration Issued to:**

<u>Site Operator</u>	and	<u>Landowners</u>	
Greenway Ag, LLC		Steven Lee Kubena	Alyssa Leanne Johnson
240 Sendra Crossing		240 Sendra Crossing	240 Sendra Crossing
La Vernia, Texas 78121		La Vernia, Texas 78121	La Vernia, Texas 78121

**III. Sludge Site:** Domestic septage will be beneficially land applied on 221.5 acres located within an approximate 347.16 acres at an overall rate not to exceed 152,923 gallons per acre per year\*. This site is located at 650 Kubena Road, Seguin in Guadalupe County, Texas 78155. (See Attachment A).

\* See Special Provision A

**IV. Authorization:** Land Application of Domestic Septage (SIC Code 4952)

This registration and the authorization contained herein will expire at midnight five years from the date of issuance.

DATE ISSUED: July 20, 2023

A handwritten signature in black ink, appearing to read "K. Keel".

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For the Commission

## **V. Standard Provisions**

### **A. Limitations**

1. Domestic septage cannot be applied in excess of the maximum domestic septage application rate based on crop nitrogen needs (i.e., the agronomic rate), which is calculated based on the total amount of nitrogen in the domestic septage to be applied and in the soils at the application site and on the nitrogen requirements of the vegetation in the application area.
2. The maximum domestic septage application rate must be calculated using Appendix A of the "Application to Register a Site for the Beneficial Use of Domestic Septage."
3. Pathogen reductions and vector attraction reduction must be met, as per 30 TAC §312.82(c) and §312.83(b)(9), (10) or (12) respectively, for any domestic septage applied.
4. Domestic septage can be applied only to the application area shown on Attachment B.
5. This registration authorizes the land application of domestic septage only and does not authorize the land application of wastewater sludge or biosolids removed from a TCEQ permitted domestic wastewater treatment plant or any domestic wastewater from a lift station, manhole, or a collection system.
6. Land application of chemical toilet waste, grease and grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes is prohibited under this registration.
7. This registration does not authorize the processing of domestic septage at the land application site. Processing includes, but is not limited to, thickening, stabilization, initial alkali addition for pathogen or vector control, and dewatering of biosolids or domestic septage.

### **B. Operation Requirements**

The operation and maintenance of this land application unit must be in accordance with 30 TAC Chapter 312 and Title 40 of the Code of Federal Regulations (40 CFR) Part 503 as they relate to land application for beneficial use. All applicable local and county ordinances must also be followed.

### **C. Reporting Requirements**

A report is required annually to document the use of the site. The report must include the following information:

1. the site registration number, and the location (address or latitude/longitude) of the site,
2. the total number of acres where domestic septage applications occurred,
3. the date and time of each domestic septage application,
4. the annual nitrogen requirement for each crop or the vegetation grown at the site,
5. rate of domestic septage application (gallons per acre per year),
6. the certification statement in 30 TAC §312.47(b)(6),

7. a description of how the pathogen requirements in 30 TAC §312.82(c)(1) and (2) were met,
8. a description of how the vector attraction requirements in 30 TAC §312.83(b)(9), (10) or (12) were met,
9. soil test reports, as per Section V.G; and
10. all laboratory tests submitted to demonstrate compliance with this registration must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

An annual report must be submitted by September 30<sup>th</sup> of each year per 30 TAC §312.48 which includes all required information above for a period covering September 1<sup>st</sup> of the previous year through August 31<sup>st</sup> of the current year. Additionally, a “Domestic Septage Land Application Summary Report Form” (Attachment C) should be filled out and submitted with the annual report. Submit your report to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 13). Record retention requirements must be followed in accordance with 30 TAC §312.47(b) for domestic septage.

**D. Regulated Management Conditions**

1. Domestic septage applications must not cause or contribute to the harm of a threatened or endangered species of plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.
2. Domestic septage must not be applied to land that is flooded, frozen or snow-covered.
3. Domestic septage applied to the land must maintain the following buffer zones for each application area:
 

a.	Established school, institution, business or residence	750 feet
b.	Public water supply well, intake, public water supply spring or similar source, public water treatment plant, or public water supply elevated or ground storage tank	500 feet
c.	Solution channels, sinkholes, or other conduits to groundwater	200 feet
d.	Waters in the State of Texas - when domestic septage is not incorporated	200 feet
e.	Waters in the State of Texas - when domestic septage is incorporated within 48 hours of application and a vegetated cover is established	33 feet
f.	Private water supply well	150 feet
g.	Public right of way	50 feet
h.	Property boundary	50 feet
i.	Irrigation conveyance canals	10 feet
4. Domestic septage must be applied to the land at an annual application rate that is equal to or less than the agronomic rate for the vegetation in the area on which the material is applied.
5. Domestic septage cannot be applied to soils with permeation rates greater than twenty inches per hour.
6. For soils with permeability greater than 2 inches per hour and less than 20 inches per hour, the land application of domestic septage is prohibited if the soil is saturated or groundwater is present within a depth of 4 feet of the treatment zone as demonstrated through the

determination of presence or absence of the perched or apparent water table. Records of monitoring data shall be maintained per 30 TAC §312.47. In the absence of groundwater monitoring, land application is prohibited during months that the most recently published soil survey data indicate that a perched or apparent water table may be present within 4 feet of the treatment zone.

7. For soils with permeability less than 2 inches per hour, the land application of domestic septage is prohibited if the soil is saturated or groundwater is present within a depth of 3 feet of the treatment zone as demonstrated through the determination of presence or absence of the perched or apparent water table. Records of monitoring data shall be maintained per 30 TAC §312.47. In the absence of groundwater monitoring, land application is prohibited during months that the most recently published soil survey data indicate that a perched or apparent water table may be present within 3 feet of the treatment zone.
8. Land application of domestic septage must not occur when the soil is water saturated as evidenced by visible pooling of water. Regulatory support for this condition can be found at 30 TAC §312.44(h)(3).
9. Domestic septage must be applied by a method and under conditions that prevent runoff beyond the active application area and that protect the quality of the surface water and the soils in the unsaturated zone. In addition, the following conditions must be met:
  - a. Domestic septage must be applied uniformly over the surface of the land.
  - b. Domestic septage must not be applied to areas where permeable surface soils are less than 2 feet thick.
  - c. Domestic septage shall not be land applied during any time when precipitation occurs, which is the deposit on the land of rain, mist, hail, sleet, or snow that falls on the ground under the action of gravitational force. In addition, domestic septage shall not be land applied during periods in which surface soils are water-saturated, or when pooling of water is evident on the land application unit.
  - d. Domestic septage must not be applied to any areas having a slope in excess of 8%.
  - e. Where runoff from the active application area is evident, the operator must cease further domestic septage application until the condition is corrected
10. The site operator must prevent public health nuisances. Domestic septage debris must be prevented from leaving the site. Where nuisance conditions exist, the operator must eliminate the nuisance as soon as possible.
11. Domestic septage application practices must not allow uncontrolled public access, so as to protect the public from potential health and safety hazards at the site.

#### **E. Pathogen Control**

1. Domestic septage applied to the site must have a pH raised to 12 or higher by alkali addition and, without the addition of more alkali, remain at 12 or higher for a period of at least 30 minutes. Records that demonstrate these conditions for each load of domestic septage must be maintained at this site for five (5) years. If the alkali addition occurs in a transport vehicle, the records must also be maintained in the vehicle for one (1) month and at the offices of the transporter's company for five (5) years.

2. In addition to controlling pathogens, the following site restrictions must be met:
  - a. food crops with harvested parts totally above the land surface in areas where domestic septage has been applied must not be harvested from the land for at least 14 months after the last application of domestic septage if any of the harvested parts contact the domestic septage or soil,
  - b. food crops with harvested parts below the surface of the land must not be harvested from the land for at least 20 months after application of domestic septage when the material remains on the land surface for four months or longer prior to incorporation into the soil,
  - c. food crops with harvested parts below the surface of the land must not be harvested for at least 38 months after application of domestic septage when the material remains on the land surface for less than four months prior to the incorporation into the soil,
  - d. food crops (when grown and harvested in a manner that prevents any part of the crop from contacting the soil or domestic septage), feed crops, and fiber crops must not be harvested for at least 30 days after application of domestic septage,
  - e. domestic livestock must not be allowed to graze on the land for at least 30 days after application of domestic septage,
  - f. public access to land with a high potential for public exposure must be restricted for at least one year after application of domestic septage; and
  - g. public access to land with a low potential for public exposure must be restricted for at least 30 days after application of the domestic septage.

#### **F. Vector Attraction Reduction Requirement**

Domestic septage must demonstrate vector attraction compliance by meeting one of the following compliance alternatives:

1. alkali addition [30 TAC §312.83(b)(6)]. If this option is selected, the pH of the domestic septage must be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for 30 minutes, or
2. domestic septage may be injected below the surface of the land [30 TAC §312.83(b)(9)]. If this alternative is used, no significant amount of the domestic septage can be present on the land surface within one hour after injection; or
3. incorporation into the soil is another compliance alternative [30 TAC §312.83(b)(10)]. If this option is used, domestic septage applied to the surface must be incorporated into the soil within six hours after application to the surface of the land.

### G. Soil Sampling and Analysis

The registrant is required to notify the local TCEQ Regional Office 48 hours prior to taking annual soil samples at the registered site.

The registrant shall obtain representative soil samples from the root zones of the land application area. Composite sampling techniques shall be used. Each composite sample shall represent no more than 80 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches and 6 to 24 inches below ground level per table below. Soil samples shall be analyzed within 30 days of sample collection.

The registrant shall submit the results of the annual soil sample analyses with copies of the laboratory reports and a map depicting the areas that have received domestic septage within the permanent land application fields with the "Annual Domestic Septage Land Application Report Form" (Attachment C) to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 13), no later than September 30<sup>th</sup> of each sampling year. If domestic septage is not applied in a particular year, the registrant shall notify the same TCEQ offices and indicate that domestic septage has not been applied on the approved land application units(s) during that year.

The registrant must monitor the soil-domestic septage mixture for the site as follows using soil sampling requirements described in 30 TAC §312.12(b)(1)(I) and (J). Analytical results must be provided on a dry weight basis. The Soil Sampling and Analysis plan shall be provided to the analytical laboratory prior to sample analysis.

No.	PARAMETER <sup>7</sup>	NOTE	FREQUENCY	SAMPLE DEPTH	
				0" - 6"	6" - 24"
1.	Nitrate Nitrogen (NO <sub>3</sub> -N, mg/kg)	1	1 per year	X	X
2.	Ammonium Nitrogen (NH <sub>4</sub> -N, mg/kg)	1	1 per year	X	X
3.	Total Nitrogen (TKN, mg/kg)	2	1 per year	X	X
4.	Phosphorus (plant available, mg/kg)	3	1 per year	X	X
5.	Potassium (plant available, mg/kg)	3	1 per year	X	X
6.	Sodium (plant available, mg/kg)	3	1 per year	X	X
7.	Magnesium (plant available, mg/kg)	3	1 per year	X	X
8.	Calcium (plant available, mg/kg)	3	1 per year	X	X
9.	Electrical Conductivity	4	1 per year	X	X
10.	Soil Water pH (S.U.)	5	1 per year	X	X
11.	Total Arsenic (mg/kg)	6	1 per 5 years	X	N/A
12.	Total Cadmium (mg/kg)	6	1 per 5 years	X	N/A
13.	Total Chromium (mg/kg)	6	1 per 5 years	X	N/A
14.	Total Copper (mg/kg)	6	1 per 5 years	X	N/A
15.	Total Lead (mg/kg)	6	1 per 5 years	X	N/A
16.	Total Mercury (mg/kg)	6	1 per 5 years	X	N/A
17.	Total Molybdenum (mg/kg)	6	1 per 5 years	X	N/A
18.	Total Nickel (mg/kg)	6	1 per 5 years	X	N/A
19.	Total Selenium (mg/kg)	6	1 per 5 years	X	N/A
20.	Total Zinc (mg/kg)	6	1 per 5 years	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) - determined 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, Method 9045C, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA SW-846, as referenced in 40 CFR §260.11 - determined 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, Physical/Chemical Methods" EPA SW-846; method 3050B.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

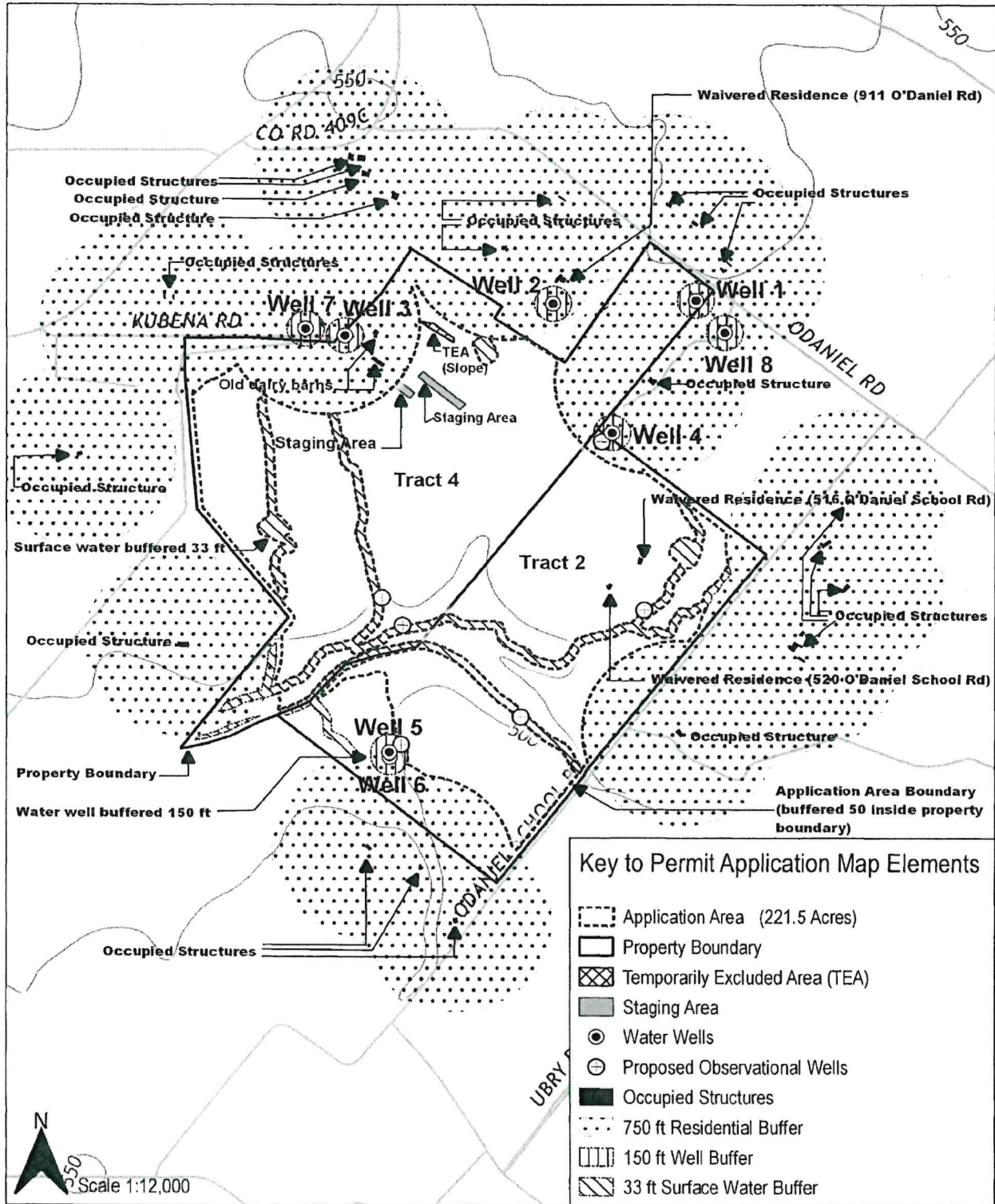
**VI. Special Provisions**

- A. For the first year of this registration, the maximum domestic septage application rate shall not exceed 152,923 gallons per acre. On an annual basis, the domestic septage application rate shall be calculated and adjusted based on current domestic septage and soil monitoring results. This application rate that is submitted in each annual domestic septage report shall not exceed the overall maximum application rate of 152,923 gallons per acre per year. A major amendment to this registration shall be required to increase the overall maximum domestic septage application rate.
- B. During times of domestic septage application, the registrant shall perform periodic visual inspections and remove any debris on the site.
- C. During times of land application of domestic septage, all buffer zones (including surface water buffers) and land application areas must be distinguished from each other by the use of flags, posting, or fencing to ensure that buffer areas and land application areas are separated from each other.
- D. The registrant shall use cultural practices to promote and maintain the health and propagation of the Bermuda grass and Ryegrass and avoid plant lodging. The registrant shall manage the established cover by mowing, cutting, and cutting and removing the grass to ensure the health and long-term permanency of the approved vegetative cover. Mowing and cutting and removing vegetation dates shall be recorded in a log book kept on-site to be made available to TCEQ personnel upon request.
- E. Septage applications shall be disposed using split applications during the year. Rest time between consecutive applications shall be no less than one month.
- F. If domestic septage applications are anticipated for periods other than May through December on Robco-Tanglewood complex (DmC) soils, June through December on Patilo and Arenosa (PaD) soils, or June through February on Umland (Uw) soils, then the permittee shall install water table observation wells at the locations identified on Attachment B (2 of 2) of the application field. The wells shall be screened to measure water tables between 0.5 and 4.5 feet below the soil surface. Land application of domestic septage in these fields shall be prohibited when the wells show a water table within 3 feet of the soil surface. Depths to water tables for dates receiving effluent applications shall be recorded in a log book kept on site to be made available to TCEQ personnel upon request.
- G. Septage application shall not take place when the ground is saturated, frozen or when it is raining.
- H. Temporary storage must follow the requirements stated in 30 TAC §312.50.
- I. Staging areas and domestic septage off-loading areas shall not be located within the required buffer zones.

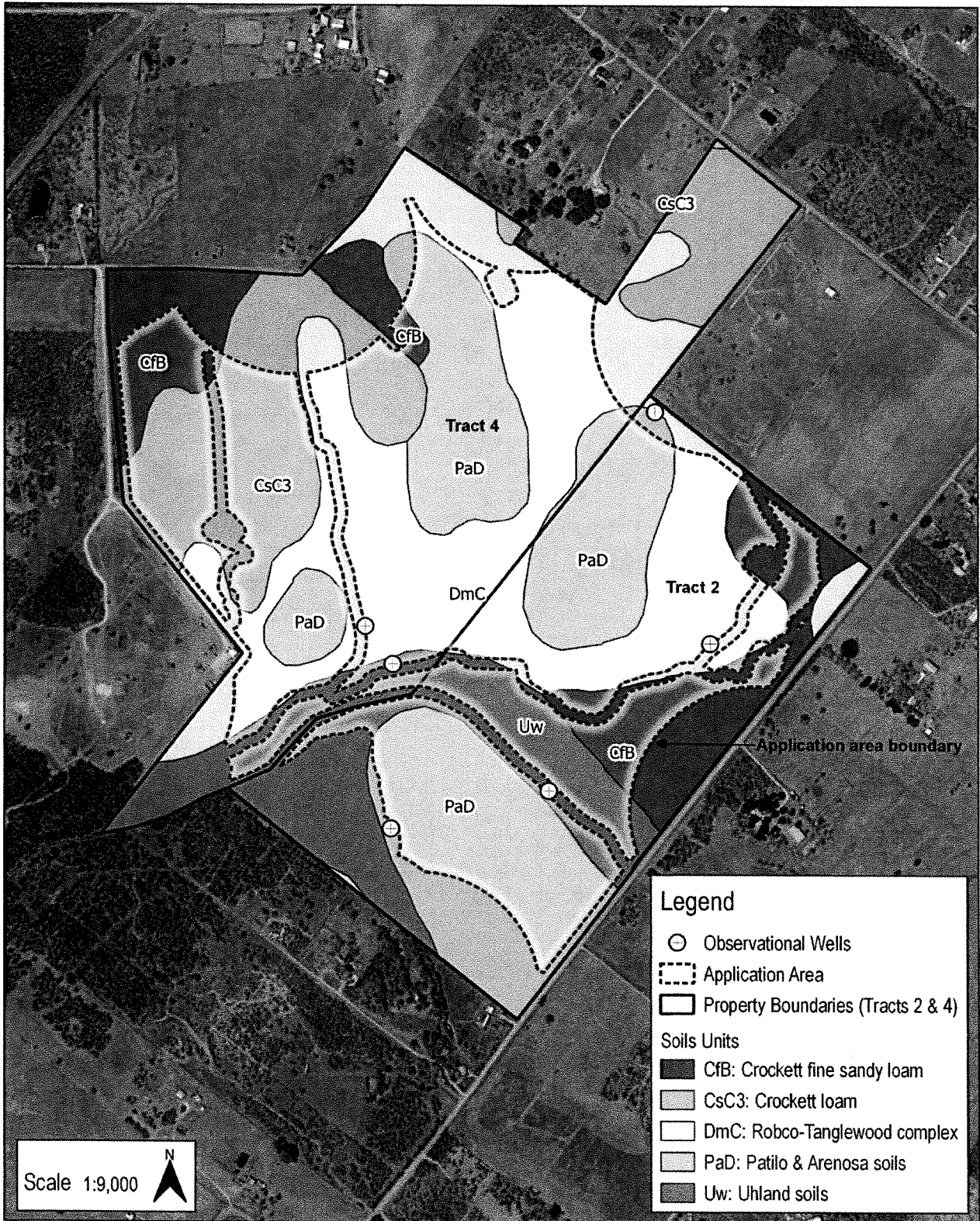




**Attachment B (1 of 2)  
USGS Topographic Map**



**Attachment B (2 of 2)  
Soils Map**



**Kubena Farms Proposed Observational Wells**



**Attachment C**

**Annual Domestic Septage Land Application Summary Report Form**

- Note 1: Please note that in addition to this summary form, you need to submit the information required per 30 TAC 312.48.  
Note 2: Please place this form at the top of your Annual Report.  
Note 3: If you operate other registered/permitted sites, then fill-out this form for each one of those sites.  
Note 4: Also send one complete copy of your report and this form to local TCEQ regional office.

For TCEQ Fiscal Year _____	Reporting period: _____	From September 1, _____	to August 31, _____
Registration No: _____	Date: _____		
Name of Registrant: _____	_____		
Mailing Address: _____	_____		
Contact Person: _____	Name: _____	Telephone No: _____	

- a. Treated Domestic Septage Land Applied: \_\_\_\_\_ gallons / year
- b. Acreage used for domestic septage application at this site: \_\_\_\_\_ acres
- c. Site Vegetation (such as grass type etc) and # of harvests: \_\_\_\_\_
- d. Annual domestic septage application rate authorized by registration to meet annual nitrogen requirement of crop/vegetation: \_\_\_\_\_
- e. Description of the process used to achieve pathogen requirements in 30 TAC §312.82 (c): \_\_\_\_\_
- f. Description of the process used to meet the vector attraction reduction requirements in 30 TAC§312.83(b)(9),(10), or (12): \_\_\_\_\_
- g. Have you enclosed the certification statement? Yes  No
- h. Have enclosed dates and times of domestic septage land application to this site? Yes  No
- i. Have enclosed the recent soil- domestic septage analysis? Yes  No

**PLEASE MAIL THE COMPLETED ANNUAL REPORT TO:**

Texas Commission on Environmental Quality  
Land Application Team (MC 150)  
Water Quality Assessment Section  
P.O. Box 13087  
Austin, TX 78711-3087



**TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY  
DECISION FOR A BENEFICIAL LAND APPLICATION REGISTRATION**

DESCRIPTION OF APPLICATION

Registration No.: 711042

Applicant: Greenway Ag, LLC

Landowner: Steven Lee Kubena and Alyssa Leanne Johnson

Regulated Activity: Beneficial Land Application of Domestic Septage

Type of Application: New Registration

Request: State Only Registration

Authority: Texas Water Code §26.027; 30 Texas Administrative Code (TAC) Chapters 281, 305, 312, and Texas Health and Safety Code §361.121; and Commission policies.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this registration, if issued, meets all statutory and regulatory requirements. The proposed registration will expire at midnight five years from the date of issuance according to 30 TAC Chapter 312.

REASON FOR PROJECT PROPOSED

Greenway Ag, LLC has applied to the Texas Commission on Environmental Quality (TCEQ) for a new registration (Registration No. 711042) to authorize the beneficial land application of domestic septage.

PROJECT DESCRIPTION AND LOCATION

The land application unit is located at 650 Kubena Road, Seguin in Guadalupe County, Texas 78155.

This registration does not authorize discharge of pollutants into water in the state.

PROPOSED REGISTRATION CONDITIONS

Domestic septage provisions are included in the draft registration according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. The draft registration authorizes the land application of domestic septage for beneficial use on 221.5 acres.

For the first year of this registration, the maximum domestic septage application rate shall not exceed 152,923 gallons per acre. On an annual basis, the domestic septage application rate shall be calculated and adjusted based on current domestic septage and soil monitoring results. This application rate that is submitted in each annual domestic septage report shall not exceed the

overall maximum application rate of 152,923 gallons per acre per year. A major amendment to this registration shall be required to increase the overall maximum domestic septage application rate.

SUMMARY OF CHANGES FROM APPLICATION

None

SUMMARY OF GROUNDWATER REVIEW RECOMMENDATIONS / CHANGES

The following Special Provisions have been included in the draft registration:

Special Provision D requires the registrant to use cultural practices to promote and maintain the health and propagation of the Bermudagrass and Ryegrass in the application field, by mowing or cutting and removing established vegetative cover in accordance with the conditions of the registration and keeping records of dates when fields are mowed and vegetation is removed.

Special Provision E requires domestic septage disposal occurring over split applications during the year, with a rest time between consecutive applications being no less than one month.

Special Provision F requires that if domestic septage applications are anticipated for periods other than May through December on Robco-Tanglewood complex (DmC) soils, June through December on Patilo and Arenosa (PaD) soils; or June through February on Uhland (Uw) soils, then the permittee shall install water table observation wells at the locations on the application field identified on Attachment B (2 of 2) of the draft registration. The wells shall be screened to measure water tables between 0.5 and 4.5 feet below the soil surface. Land application of domestic septage in these fields shall be prohibited when the wells show a water table within 3 feet of the soil surface.

Special Provision G prohibits domestic septage application when the ground is saturated, frozen or when it is raining.

Special Provision I prohibits staging areas and domestic septage off-loading areas from being located within required buffer zones.

SUMMARY OF CHANGES FROM EXISTING REGISTRATION

None. This is a new registration.

SUMMARY OF REQUESTS / ISSUES MADE BY THE APPLICANT THAT OCCURRED IN A CHANGE IN THE SPECIAL PROVISIONS

None.

BASIS FOR PROPOSED DRAFT REGISTRATION

The following items were considered in developing the proposed draft registration:

1. Application received on October 25, 2022 and additional information received on February 23, 2023, March 11, 2023, March 29, 2023, and May 26, 2023.



2. Inter-office Memorandum from the Regional Office (MC Region 13), Water Quality Assessment Team, Water Quality Assessments Section, Water Quality Division.

#### PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk mails the Notice of Receipt of Application and Declaration of Administrative Completeness to the adjacent landowners listed in the application, state agencies, and county officials. The applicant places a complete copy of the application with the County Judge for review and copying in the county where the facility is or will be located. The application and notice will be held at the County Judge's office throughout the comment period. This notice informs the public about the application and provides that an interested person may file comments on the application. This notice sets a 30-day deadline for public comment.

Once a draft registration is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary, to the Chief Clerk. At that time, the Preliminary Decision, Response to Comments and a letter of notice by the Chief Clerk will be mailed to the same people as the prior notice.

The applicant or any affected person may file with the Chief Clerk a motion for reconsideration of the Executive Director's final approval of the application. Any person who was entitled to but not given proper notice of an application and subsequently did not submit comments within the 30 day comment period may file a motion for reconsideration. A motion for reconsideration must be filed with Chief Clerk not later than 20th day after the date on which the Chief Clerk mailed to the applicant the signed registration or other approval. The Executive Director's decision is not affected by the filing of such motion unless expressly so ordered by the commissioners within 45 days after the date on which the Chief Clerk mailed the signed registration or approval to the applicant.

#### PUBLIC COMMENT OR ADDITIONAL INFORMATION

Pursuant to 30 Texas Administrative Code (30 TAC), Section (§) 312.13(d), before a new domestic septage registration is issued, the ED reviews and considers any written comment received during the public comment period. The public comment period ended on March 16, 2023.

**Comment:** (Opposition to Application) Several letters were received from commentors and the Guadalupe County Groundwater Conservation District to deny the request for the registration. Other comments state that the proposed activity should not be allowed.

**Response:** The Executive Director acknowledges these comments.

**Comment:** (Petition) Some commentors referenced and one commentor provided a list of 231 names of people expressing concerns for health of residents in the area and environmental impacts.

**Response:** The Executive Director acknowledges these comments.

**Comment:** (Commissioners Court of Guadalupe County, Resolution No. 03072023-6B) Commentors provided copies of Resolution No. 03072023-6B of the Commissioner's Court of Guadalupe County. This resolution, which is dated March 7, 2023, recognizes the risk of an adverse effect on public safety, quality of life, and water quality by this operation, and resolves that the court requests, urges, and exhorts TCEQ to open the application for public input and comment prior to rendering a decision and comply with statutory requirement to provide a copy of the registration application to the County Judge.

**Response:** The Executive Director acknowledges this resolution.

**Comment:** (Proposed Site Bypasses Existing Laws and Regulations) A comment was received noting that the proposed activity is an exercise to bypass existing laws and regulations requiring the disposal of residential domestic septage at an approved sewage treatment facility.

**Response:** Domestic septage is often taken to approved sewage treatment facilities, but in Texas there is also the option of treated domestic septage being land applied for beneficial use. The primary objective of the Texas Commission on Environmental Quality's (TCEQ) Beneficial Land Use Program is to ensure that the use of domestic septage will neither endanger the public health nor degrade the environment. The registration does not allow for land application of hazardous materials. The registration only allows the land application of domestic septage which is defined in 30 TAC § 312.8(31) as either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Only properly digested and stabilized domestic septage that meets the requirements to significantly reduce pathogens is approved for land application.

**Comment:** (Confusion Regarding Who is the Applicant, Various Different Names/Entities Associated with the Application for the Registration) Comments received expressed concern regarding the different names on the application, discrepancies as to who is applying for the permit and discrepancies in mailing addresses for various individuals and businesses listed in the application. The commentor notes that Stephen Kubena is listed in the application as the business representative, but he is not listed as a legal agent of Greenway Ag, LLC, and the Registered Agent of Greenway AG, LLC belongs to Joshua Kubena, who is not mentioned in the application. The commentor also notes that Steven Kubena is the registered agent of Sure Flo Septic, LLC, which is not mentioned once in the application, but the Applicant's signature page, Greenway Ag, LLC, has the signatory of Steven Kubena, Jr., who is not the registered agent of Greenway Ag, LLC.

**Response:** The applicant is the operator, Greenway Ag, LLC. Steven Lee Kubena Sr. and Alyssa Leanne Johnson are also named separately from the applicant/operator as the landowners where the land application is proposed.

The mailing address used for the registration was provided on the core data form(s) as the contact mailing address for the applicant and landowners. The application was signed by the applicant and both landowners certifying the information supplied is correct.

The Secretary of State lists Joshua Kubena, Steven Kubena Sr, and Steven Kubena Jr as Managing Members of Greenway Ag, LLC, please see attached. The signatory requirements for the application state that the person signing the application should have signatory authority

under 30 TAC 305.44 which does not need to be the same person named as the Registered Agent. A managing member of an LLC can sign the application and be identified as the contact person for the registration.

Whether a landowner owns another business separate from this registration is not information that is required in the application.

**Comment:** (Notification Concerns) Numerous comments were received indicating that several landowners and a restaurant were not properly notified by mailed notice or properly informed about the proposed activity as per TCEQ guidelines.

Other comments questioned if state law requires publication of the notice within a certain amount of time in the largest publication in the county or city. Comments also noted that the notice was not posted, and a comment was received opposing the method of notification.

A comment was received from the Guadalupe County Commissioner for Precinct 4 stating that the Guadalupe County Judge received the Notice of Receipt of an Application and Declaration of Administrative Completeness on February 23, 2023, with the notice stating that the TCEQ has mailed a copy of the application to the Guadalupe County Judge for viewing by interested parties. The Commissioner states that the application was not included with the notice, and the Judge's Office finally received the application on March 6, 2023. The Commissioner notes that the Certified Mail tracking number on the USPS website reveals that the application was not given to USPS for mailing until March 3, 2023.

A commentator noted that because the copy of the application for the registration was not included with the notice mailed to the Guadalupe County Judge, and had not been received as of March 7, 2023, the TCEQ failed to meet the statutory requirement of 30 TAC §312.13(c)(2).

A comment from the Guadalupe County Commissioner's Court noted that interested parties were supposed to have 30 days from February 14, 2023 to review the application and provide written comments to the TCEQ. Since there were delays in the application being mailed and received by the County Judge, there were only ten days to allow the public to review the application. Therefore, the comment period should be extended an additional 30 days to allow for those who were not notified to provide comment.

Other commentators expressed concern because the TCEQ did not provide a copy of the application, thereby making the consideration and evaluation of the request for the registration to be decided upon solely by the TCEQ without providing for public input or comment. The Guadalupe County Commissioners' Court has passed a resolution seeking additional time for county residents to be able to comment before the TCEQ approves the application.

A commentator requested any further consideration of this application to apply domestic sewage be halted until all statutory notice requirements have been satisfied and all affected persons and interested parties have had the opportunity to voice objections and concerns.

**Response:** Notices for registrations to land apply domestic septage are not required to be published in a newspaper. These notices are mailed to all landowners whose properties are directly adjacent to the site where the land application activity is proposed to take place.

The TCEQ Office of the Chief Clerk mailed the notice out on February 14, 2023, with a copy of the application being mailed to the Guadalupe County Judge's office on that same date. This notice is sent via certified mail. The card indicating receipt of the postage was signed on March 6, 2023.

**Comment:** (Concerns with Trust of Applicant, Misinformation Provided in the Application) Comments were received indicating that the Applicant provided an application with misleading and fraudulent information. One comment noted that a new well used for domestic use and newly constructed houses were known by the applicant before submitting the application but was not included on the application.

**Response:** When an application is first received by the TCEQ, it is first reviewed for administrative completeness. Once the application can be declared administratively complete it is then forwarded to the Land Application Team for the technical review. During the technical review process, investigators from the local TCEQ regional office visit the proposed site for a site assessment. This is where any discrepancies from what is shown in the application and what is actually located on the ground are addressed. Following the site assessment conducted by the TCEQ Region 13 Office, the applicant provided revised information on locations of wells and houses which were not included in the original application. These wells and houses are now appropriately buffered from the proposed land application activities.

**Comment:** (More Time Needed to Determine Impacts) A comment was received stating that there is insufficient time and research given to the effects domestic septage will have on crop production, well water, and runoff.

**Response:** The TCEQ has overseen the issuance of registrations for land application of domestic septage and inspected these sites since the State of Texas was granted authorization for this program by the U.S. Environmental Protection Agency.

**Comment:** (Concerns Over a Major Fault Line) A comment was received noting a major fault line running east to west across properties nearby to the proposed site and possibly through the area of the proposed land application site, thereby allowing for domestic septage to seep into groundwater.

**Response:** A TCEQ staff geologist has researched this concern and found that the nearest mapped fault is five miles to the northwest of the proposed site. The geologist is also not aware of any other faults near or on the proposed site.

**Comment:** (Concerns Regarding Wells in the Area) Several comments state that the application incorrectly describes uses for several wells and there are wells used for human consumption being located within buffer zones that are not included in the application.

There are comments noting that Well 7 is identified in the application as being used for livestock, but that it is in fact used for domestic purposes only and is the only source of water for an occupied structure on 600 Kubena Road and also noted is Well 8 is used for domestic purposes and livestock.

A commentor states that wells identified in the application as Wells 3, 4, 5, and 6 are indicated as producing, but they are not producing. The commentor notes that, as per the application, if wells are not producing and cased, then these wells must be plugged or capped before domestic septage application.

A commentor states that many wells identified in the application are shown as operational and cased, but the wells shown on Tracts 4, 2, and 5 are very old and have not been maintained in 15 plus years and may not actually be operational, with their casings needing repair.

A comment notes that Irrigation Well 5 has collapsed and may have never been repaired. Comments received questioned if a licensed inspector has signed off on the conditions of the wells to verify there is no direct link to contaminating the groundwater, and another commentor requests a licensed inspection to confirm the state and operation of the water wells.

**Response:** Following review of the application by TCEQ staff geologist, several corrections were made to the application regarding the wells. Wells 1, 3, 4, 5, and 6 are now shown in the application to be not producing, with Wells 1, 3, 4, and 5 indicated as cased and to be capped before domestic septage application takes place. Well 6 is indicated in the application as currently capped. Well 7 is now indicated as being used for domestic use and Well 8 is now indicated as being used for both domestic use and livestock.

Water well locations are verified by the TCEQ using publicly available information, primarily from the Texas Water Development Board, although not all wells are registered and there is no statewide database for water wells. There is no requirement for a licensed inspector to review and verify well operations and conditions and links to groundwater.

**Comment:** (Discrepancies Between Shelters/Dwellings Shown in the Application and Those Actually Located in the Area) Comments received noted that there are two occupied dwellings located in the buffer zones that are not listed in the application. Additional comments were received noting that there are newly constructed occupied houses, a business dwelling, and a newly drilled well for domestic use on Tract 3 and 1 of the Kubena Family Settlement Agreement which are not listed in the application as being buffered. In addition, several buffer zone properties were not appropriately marked.

Another comment requests a new survey of the buffer zone areas to include additional occupied dwellings and water wells used for human consumption. A landowner had previously signed a buffer zone waiver, but later retracted this waiver to the buffer zone, and they would like to see an updated application where their property is now buffered from the proposed activity.

**Response:** On March 3, 2023 investigators from the TCEQ Region 13 Office visited the proposed land application site to conduct a site assessment. The purpose of this assessment is to evaluate the actual site conditions and to identify any notable features not currently identified in the registration application. Following this site assessment, the Applicant provided a revised buffer zone map indicating occupied structures, along with the required 750 ft. buffer zone drawn around these structures on the revised map. Areas within these buffer zones have now been excluded from proposed land application activities. The landowner who previously signed a buffer zone waiver and later retracted the waiver now has the required 750 ft. buffer zone around their house.

**Comment:** (Impacts on Surface Waters) A comment notes that the application indicates "spillage is not anticipated," but that when this area has large amounts of rain, the groundwater and tanks and ponds naturally overflow and run downstream, bordering the site to the east and that runoff due to flooding will flow to the Elm Tributary and eventually going to Cibolo Creek. The commentor also notes that there is no way the applicant can contain, collect, or control raw, untreated sewage from going downstream.

Other commentors note that substantial areas of the proposed application site lie within the 100-year floodplain, which will result in nutrients and bacteria running off the fields as a result of rainfall events. There are concerns of contamination and that buffer zones will not protect surface area waters when under water.

Another comment states that the location of the site is within the drainage basin of Lower Cibolo Creek, which is already impaired for elevated bacteria concentrations. Other comments expressed concern for surface waters, including a recently constructed pond for recreational use and fishing, due to an increase in nutrients and heavy metals and other pollutants.

**Response:** Runoff of domestic septage from the land application areas is prohibited under the TCEQ regulations and the draft registration. The draft registration includes management requirements designed to prevent runoff of domestic septage from land application unit beyond the active application area. The Applicant is required to apply domestic septage uniformly over the surface of the land under conditions which prevent runoff of the domestic septage beyond the active application area, and the Applicant must protect the quality of the surface water and the soils in the unsaturated zone. The Applicant is also prohibited from applying domestic septage during rainstorms or during periods in which surface soils are water saturated, frozen, or snow-covered, and in areas having topographical slopes in excess of eight percent. Also, the draft registration requires the site operator to cease further domestic septage application if runoff from the active application area is evident and continue to cease domestic septage application until the condition is corrected. As there should be no runoff of material beyond the active application area, the land application of domestic septage should not impact neighboring properties and area surface waterways.

TCEQ reviewed the application to determine if the proposed land application unit has adequate buffer zones between it and any surface water bodies, any sources of public water supply, wells, or other conduits to ground water. The registration is drafted to be protective of nearby wells and water sources. Specifically, 30 TAC § 312.44(c) requires the following buffer zones from application areas:

1. 200 feet from any surface waters;
2. 150 feet from any private water supply well;
3. 500 feet from any public water supply well, intake, public water supply spring or similar source, public water treatment plant, or public water supply elevated or ground storage tank;
4. 200 feet from any solution channels, sinkholes, or other conduits to groundwater; and
5. 10 feet from any irrigation conveyance canal.

The draft registration also prohibits the Applicant from applying domestic septage at a rate greater than the calculated domestic septage annual application rate (AAR). The AAR is

designed to provide the amount of nitrogen needed by the crop or vegetation grown on the land (the agronomic rate), thus ensuring that the nutrients are fully utilized by the plant, and none are available for seepage into groundwater or surface water bodies. The Applicant is required to land apply domestic septage at rates no greater than the calculated agronomic rates.

Under 30 TAC §312.44(h)(6), domestic septage may not be applied to land located within a designated floodway, but this rule does not prohibit land application of domestic septage in the floodplain. 30 TAC §312.8(36) defines a floodway as being a channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the surface elevation more than one foot. 30 TAC § 312.8 (13) defines base flood as a flood that has a 1% chance of occurring in any given year.

The primary objective of the TCEQ's Biosolids Program is to ensure that the land application of domestic septage will neither endanger the public health nor degrade the environment. The land application of domestic septage at the appropriate agronomic rates to soils with appropriate permeability and at the recommended slopes, while observing the buffer zones, will not adversely affect surface water quality. An operator that fails to comply with draft registration or Commission rules is subject to enforcement actions.

**Comment:** (Runoff onto Surrounding Properties) Comments note that the area floods a lot and there is substantial runoff onto surrounding properties, with some comments indicating that approximately 10-12 acres of the proposed site could drain directly onto neighbor's land. Also, there are other neighboring properties having around half to 60 percent of their land covered in water that has runoff the proposed land application area.

Other comments indicate that the application and maps do not accurately reflect a recent road that was constructed on an easement to a property sold and how this road has changed the elevation, as well as a culvert being installed that now directs the flow of the runoff onto their property even more than before the road was constructed. This commentor has stated that this needs to be reflected in the current application.

Other concerns expressed pertained to runoff from the proposed site impacting cattle grazing on neighboring land, as well as impacting the hay grown on neighboring land which would be ingested by the cattle and the chances of and an increase in rodents and insects causing harm or illness to neighboring cattle.

**Response:** As noted in the response above, runoff of domestic septage from the land application area is prohibited. Management requirements are established for how and when and under certain conditions domestic septage can be land applied. Also, on March 3, 2023 investigators from the TCEQ Region 13 Office visited the proposed land application site to evaluate the suitability of the property for the proposed activity. An area located between Wells 2 and 3 appeared to have slopes exceeding 8 percent and is buffered from land application of domestic septage.

**Comment:** (Runoff Impacting Groundwater and the Carrizo-Wilcox Aquifer) There were numerous comments received concerning runoff of domestic septage impacting groundwater and the Carrizo-Wilcox Aquifer. Comments also mentioned a lack of vegetation on the site to extract nutrients from the domestic septage, resulting in soil nutrient saturation with runoff

going to waterways and the aquifer.

There are also concerns over vertical and horizontal leaching during rain events, frequent flooding with substantial runoff in the area. Also noted is soil types at the site are consistent with shallow, perched groundwater zones having a high permeability, seepage from millions of gallons of raw sewage into the aquifer would contaminate drinking water for humans and livestock in numerous counties throughout the area and the underground water source at this site travels directly to the Edwards Aquifer, potentially harming millions of people.

There are comments concerning the number of wells in the area, with concerns that there are old wells that are not being maintained, thus leading to contamination of groundwater. Also, the number of wells near or on the application site provide potential hydraulic conduits for the movement of contaminants within the domestic septage that can reach and contaminate the Carrizo Wilcox Aquifer in the area despite being cased and being buffered.

One commentor asked how the TCEQ will measure the amount of toxins that will go into surrounding water sources and the aquifer below the property.

Another comment mentioned the application indicating there is "near surface groundwater and these conditions will be accounted for and all applications will adhere to the rule where it pertains to these limitations."

Comments were received stating that the community should have access to rules, what measures the TCEQ has in place to verify that the applicant is aware of and understands these rules, what measures the TCEQ has in place to make sure rules are followed. Another question letter asks what exactly is "near surface groundwater," and if this is a creek or gully on the property.

**Response:** The TCEQ has established management requirements in accordance with 30 TAC §312.44 to protect against groundwater contamination, which are provisions incorporated into the draft registration. As mentioned in the previous response above, the Applicant is required to apply domestic septage uniformly over the surface of the land and under conditions that prevent runoff of domestic septage beyond the active application area to protect the quality of the groundwater, surface water, and the soils in the unsaturated zone.

The draft registration also prohibits the Applicant from applying domestic septage at a rate greater than the calculated domestic septage AAR, as described in the previous response. The AAR is designed to provide the amount of nitrogen needed by the crop or vegetation grown on the land and to minimize the amount of nitrogen in the domestic septage that passes below the root zone of the crop or vegetation grown on the land to the groundwater.

TCEQ also reviewed the application to determine if the proposed land application unit has adequate buffer zones between it and any private water wells, sources of public water supply, conduits to ground water, and any surface water bodies. These buffer zones are listed in the previous response above. These requirements are designed to protect water sources against adverse effects on the groundwater in the area.

The proposed domestic septage application site overlies the recharge zone of the Carrizo-Wilcox Aquifer. The registration includes the management practices for surface water and groundwater protection in accordance with 30 TAC §312.44 which includes buffers for water wells (150 ft for private water supply wells) and surface waters (33 ft vegetative buffer for incorporated domestic



septage). Perched groundwater tables were identified in three of the onsite soils. The applicant proposed the use of observational wells to determine if shallow groundwater exists immediately prior to application. Observation well locations are shown on the soil map received on March 9, 2023 and the site map received on March 13, 2023.

**Comment:** (Guadalupe County Groundwater Conservation Districts Rule 8.1) A comment on behalf of the Guadalupe County Groundwater Conservation District (the District) indicates that the land application of domestic septage at this site may violate the District's rules, stating the District's Rule 8.1 – "In no event may waste or sludge be permitted to be applied in any manner in any outcrop area of any aquifer within the [District]." The commentor notes that the Rule requires the applicant provide the District notice of its application within 10 days of the application and to date, the applicants have not provided such notice.

**Response:**

The Executive Director has made a preliminary decision that this registration, if issued, meets all statutory and regulatory requirements. Consideration of the District's rules are outside the scope of TCEQ's jurisdiction.

**Comment:** (Fields Already High in Nutrients, Runoff Transporting Nutrients to Surface and Groundwater) A comment was received stating that previous use of the fields was a dairy. There are concerns with the soils analysis in the application indicating fields having high Phosphorus and Nitrate-Nitrogen concentrations and with the soil already containing more than adequate nutrients for vegetative growth, the phosphorus in the domestic septage will run off the area into surface waters or move into groundwater.

**Response:** Per §312.43(c), the annual application rate for domestic septage applied to agricultural land is calculated based on the amount of nitrogen in pounds per acre per 365-day period needed by the crop grown on the land. The applied nutrients are utilized by the proposed crops. Domestic septage applications are required to be split throughout the year as well as not be applied when the ground is saturated, frozen, or when it is raining as to not create any runoff conditions. Additionally, there is a required buffer of 200 ft from any surface water. Domestic septage applications are designed to be temporarily held within the rooting zone and utilized by the crop. Additionally, the applicant is required to install water table observation wells and no domestic septage shall be applied when the water table is within 3 feet of the soil surface mitigating any potential groundwater interaction.

**Comment:** (Proposed Land Application Activity Modifications, Based on 30 TAC §§312.42 and 312.44) A comment was received stating that the TCEQ Executive Director (ED) has the authority to require an Applicant to be subject to requirements of §312.42 and §312.44 Since the proposed activity is to take place in the 100-year floodplain on land with high existing nutrient concentrations, the sensitive nature of this site. There is also a reliance of nearby persons on impacted groundwater which would justify imposition of all such requirements and the ED should then modify the authorization of this proposed activity.

**Response:** The registration requires the Applicant to follow all management practices required under 312.44, whereby the domestic septage must be applied to the land at the annual whole application rate that is equal to or less than the agronomic rate calculated for this site.

**Comment:** (No Sampling of Domestic Septage Required, Insufficient Characterization of Material) A comment was received noting that the application does not include any genuine description of the material to be land applied, with the source of the material is described as "residences,". In addition, the application does not contain information about the composition of the material, as there was no sampling of the material provided, and is therefore insufficient to provide the characterization of material needed for ED to accurately determine if the proposed activities are compliant with TCEQ rules.

**Response:** Because domestic septage is collected from numerous septic systems to be land applied within a short amount of time, each septic from each household is not required to be tested, as this would require several days for each lab analysis from all of the different septic systems to be returned, which would not be reasonable. 30 TAC § 312.12 (a)(1) states that the Applicant shall submit to the Executive Director an original, completed form approved by the Executive Director, and such information as may reasonably be required. The application form does not require analysis of the domestic septage, and this is the application form approved for obtaining a registration to land apply domestic septage. However, the registration does require the Applicant to monitor the soil- domestic septage mixture once every five years for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc.

30 TAC § 312.12(a)(1) states that the information submitted by the Applicant may include a description and composition of the material to be land applied and a description of all processes generating the material to be land applied. As mentioned previously, the rule states that the Applicant shall submit to the Executive Director such information as may reasonably be required. The composition of the material to be land applied is domestic septage and is defined in 30 TAC §312.8(31) as: "Either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap or chemical toilet waste." The process for treating domestic septage to meet pathogen and vector attraction reduction requirements is addition of alkali, whereby the pH of domestic septage land applied to agricultural land, forest, or a reclamation site must be raised to 12 or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for a period of 30 minutes, as stated in 30 TAC §§ 312.82(c) and 312.83(b)(12).

**Comment:** (Accuracy of FEMA Maps) There were comments received questioning the accuracy of the Federal Emergency Management Agency (FEMA) maps and if these maps reflect the Atlas 14 updates. A comment noted that until a map is updated, it is unknown if Elm Tributary will be affected by the discharge during a rain event. A comment also questioned if there was a survey done to accurately reflect the current topography.

**Response:** Data collected from the Atlas 14 rainfall study for the State of Texas will eventually be used by cities in the state to update floodplain maps, which will then be provided to FEMA so they can update their Flood Insurance Rate Maps. Based on information from the FEMA website, it appears there have been no revisions to the floodplain areas on the proposed property.

**Comment:** (Treatment and Testing of Domestic Septage Prior to Land Application) A comment was received indicating that Section 3 of the application states that pathogen and vector reduction treatment of untreated domestic septage is not allowed under this registration, and that by not treating the waste before being land applied is dangerous and a blatant disregard for the neighboring community.

There were also comments questioning how the domestic septage will be treated, if lime is the only treatment, who tests the trucks for adequate levels of lime, what the holding period for the lime in the trucks is, how is lime treatment enforced, and if there is an independent inspector confirming treatment is adequate.

Other comments questioned the percentage of truck offloading domestic septage being required to provide pH and nutritional testing, who is allowed to perform the testing, certifications required for personnel involved, ramifications for missing testing, and ramifications for a falsified test.

**Response:** Section 3 of the application states "The initial pathogen reduction and vector attraction reduction treatment of untreated domestic septage is not authorized under this registration. A separate TCEQ Municipal Solid Waste authorization must be obtained to treat the domestic septage if it is not treated in the registered transport vehicle." This means that the registration does not allow the operator to initiate the treatment and stabilization of the domestic septage on the site. The registration requires that the treatment and stabilization of the domestic septage must be initiated prior to the domestic septage being transported to the site. The second part of Section 3 is on the following page, and here the Applicant has indicated that the requirements for the reduction of pathogens and vector attraction are achieved through the addition of lime and raising the pH of the material to greater than 12 standard units for at least 30 minutes.

In response to the questions listed above, the process for treating domestic septage to meet pathogen and vector attraction reduction requirements is addition of alkali, whereby the pH of domestic septage land applied to agricultural land, forest, or a reclamation site must be raised to 12 or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for a period of 30 minutes, as stated in 30 TAC §§ 312.82(c) and 312.83(b)(12).

**Comment:** (Pharmaceuticals/PFAS/Other Pollutants) Several comments expressed concern regarding medications, drugs, pharmaceuticals and PFAS found in human waste and ask if the domestic septage will be treated for this before it is put on the ground. Some comments noted that lime will not treat these substances. One comment noted that these materials can end up in ponds used for recreation and fishing.

**Response:** The TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in statute. The land application for beneficial use registration process is limited to controlling the discharge of pollutants into or adjacent to water in the state and protecting the state's rivers, lakes, and coastal waters. The science on emerging contaminants, such as medications, is currently evolving. While the U.S. Environmental Protection Agency (EPA) and other agencies continue to study emerging contaminants, currently there is no clear regulatory regime available to address the treatment of these contaminants in domestic septage. Accordingly, neither the EPA nor TCEQ has rules governing the treatment of emerging contaminants, such as medications, in domestic septage. The Executive Director has no reason

to believe that domestic septage contains medications in amounts that impact human health or the environment.

**Comment:** (Human Health/Environment Concerns) Several comments were received expressing concern for the safety and health of their families and the whole community and the environment. The comments note that communicable diseases and medications and drugs are found in human waste and runoff containing *E. coli*, salmonella or other hazardous pathogenic bacteria will contaminate groundwater and nearby waterways.

Commentors questioned why the TCEQ is allowing these applications to proceed when there is ongoing federal research happening around human health and environmental concerns for sites like this one, and why Texas does not hold off on approving these applications until the research is done in 2024.

**Response:** In accordance with the draft registration, the site operator must comply with detailed management practices designed to protect human health and the environment. The TCEQ has established management requirements for land application units, which are incorporated in the draft registration. In addition, the registration does not allow the operator to maintain or create any nuisance conditions. 30 TAC § 312.44(j) requires the Applicant to operate the proposed land application unit in a manner to prevent public health nuisances. The operator must prevent domestic septage debris from blowing or running off site boundaries or into surface waters, and they must minimize dust migration from the site and access roadways and minimize objectionable odors through incorporation of the domestic septage into the soil or by taking some other types of corrective action. In addition, 30 TAC § 312.44(c)(2)(D) and (E) require the registration to include buffer restrictions prohibiting a land application area to be located closer than 750 feet to a business or occupied residential structure and closer than 50 feet to a public right of way or property boundary to minimize any off-site odor problems.

The draft registration also includes buffer zone and site management requirements that restrict how close a land application area may be located to water bodies to minimize the potential for contaminating water supplies such as drinking water and water used for recreational activities. The buffer zone requirements are set out in a previous response shown above and can be found at 30 TAC § 312.44(c). TCEQ's field office staff conducts periodic site inspections to determine whether Applicant is in compliance with the regulatory mandates.

The proposed registration requires the Applicant to land apply domestic septage after the domestic septage has undergone a vector attraction reduction process that is meant to reduce any possible odors that may attract rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

**Comment:** (Comments on Injecting Material) Comment letters were received regarding subsurface injection of domestic septage planned for the site, in particular if the Applicant is required to use subsurface injection. There are also comments regarding repercussions if subsurface injection is not used to distribute the domestic septage. There is also concern whether the material will be injected into the ground or sprayed onto the ground. There were comments questioning if the applicant will have the right to spray the domestic septage instead of injecting it. A commentor noted that the application needs to be updated or the community needs to be informed to state that domestic septage will be injected into the ground.

**Response:** Section 1 of the Technical Report of the application indicates that the domestic septage will be injected into the soil, using knives and chisels to inject the material below the soil surface.

**Comment:** (Methods for Pest and Rodent Control) Comments were received asking what pest and rodent control methods are expected to be taken at the site.

**Response:** Domestic septage intended for beneficial land use is required to be treated to reduce its attraction for vectors (which limits the potential for transmitting diseases) by reducing odors. 30 TAC §312.83 outlines specific requirements for vector attraction reduction. Additionally, if the site does attract vectors, this problem is considered to be a nuisance condition, which the registration and rules specifically prohibit. Should such a problem occur, the Applicant must take an appropriate step to correct it immediately.

**Comment:** (Monitoring of Site) Comment letters were received asked several questions regarding monitoring, such as who will be monitoring the actual site, who will monitor record keeping at the site and at the place treating the domestic septage, and who will spot check to be sure proper amounts of lime have been added to the material. There was a question as to how often during the operation of the site heavy metals will be tested and how they will be documented and communicated, and there was a question about how area landowners can monitor the domestic septage application rate. Other questions concerning monitoring pertained to soil testing, such as the regulations for soil testing, what tests are performed and how often and for what specific nutrients, pathogens, and metals, if the tests cover all acres of the site that are in use, if testing is performed by an independent inspector, if neighbors and the public will have access to the test data, and what happens if there is a violation of the regulations. There was a question concerning if quarterly and annual reports submitted by the applicant will be open to public records to ensure the proper testing and pathogen/vector reduction methods are followed throughout daily activities, if these reports can be found online, and if not, how can copies be obtained.

**Response:** The domestic septage is treated prior to land disposal. Treatment is achieved by applying lime or similar alkali material to raise the pH of the domestic septage to 12 or higher, and to maintain the pH of the domestic septage at 12 or higher for a period of 30 minutes, without the addition of more alkali.

This material is added to the trucks transporting the domestic septage to the site and is the responsibility of the transporter. When trucks arrive at the site the pH of the material is tested by the transporter, with the operator being responsible for ensuring that the domestic septage meets the pathogen reduction requirements prior to land application. Records must be maintained to document the amount of domestic septage in gallons per acre applied per year. These records are reviewed during periodic inspections by the TCEQ Region 13 Office. Quarterly reports are not required for domestic septage land application registrations, but an annual report should be sent to the TCEQ Central Office by September 30<sup>th</sup> each year.

**Comment:** (Concerns of Operations at the Site) Several comments expressed concern regarding the amount of domestic septage to be land applied on the soil and how the TCEQ will

know the domestic septage is being applied appropriately.

There are questions of which organization is going to inspect and regulate the amounts and actual rate of domestic septage that will be actually land applied, will be applied at any time during the year, and the type of vegetation used to determine this rate.

Another comment mentioned concern over the hot, dry weather for many months where vegetation does not grow, causing very limited absorption of the material into the grass, thus allowing the domestic septage to remain stagnant in the fields. There are concerns in regard to the Applicant supplying all necessary equipment for filtering the domestic septage when applied on the property.

**Response:** The amount of domestic septage able to be land applied is determined by calculating the Annual Application Rate (AAR), which is based on the amount of nitrogen in pounds per acre per 365-day period needed by the intended crop or vegetation to be grown on the land. The concentration of nitrogen already in the soil is provided in the lab analysis reports of soil samples collected at the proposed site, which is included with the application. Using this information, the AAR is calculated in gallons per acre per 365-day period. This calculated AAR is a part of the draft registration, with the Applicant authorized to apply no more than this amount per acre during a 365-day period.

According to the application provided by the Applicant, domestic septage could potentially be applied 7 days per week, 12 months per year, however this will be dependent on if surface groundwater is impacting the site, or if the soils are saturated or frozen. Also, following a review of soils and planned crops and harvesting at the proposed site by a TCEQ agronomist, a Special Provision has been added to the draft registration requiring the permittee to install water table observation wells in certain fields and recording depths to water tables prior to land application on Robco-Tanglewood complex (DmC) soils during the months May through December, Patilo and Arenosa (PaD) soils during the months June through December, and Umland (Uw) soils during the months June through February. Land application of domestic septage in these fields shall be prohibited when the wells show a water table within 3 feet of the soil surface.

**Comment:** (Public Involvement Plan) A comment was received asking if there is a public involvement plan in place to address the concerns of the community before the activity is authorized, as assessed by the PIP form.

**Response:** As per TCEQ policy, the Public Involvement Plan Form for Permit and Registration Applications (PIP) is required for applications submitting on or after November 1, 2022. The application for this proposed registration was received on October 25, 2022. Therefore, the PIP form is not required for this particular registration application.

**Comment:** (How Complaints, Inspection, and Violations are Addressed) Comments were received questioning who would be responsible for taking complaints from local residents and how quickly these complaints would be addressed. Also, what violation penalties would be served to the Applicant and what TCEQ policy is when a noncompliant site gets shut down. The commentor questions how many complaints would be needed for this action.

**Response:** The TCEQ Region 13 Office in San Antonio takes complaints from local residents

regarding the proposed land application site. According to Region 13 staff, typically complaints are assigned to an investigator within a couple days of receipt. Management in the Region 13 Office will prioritize complaints, which determines the timeframe for staff to investigate the complaint. This timeframe is from one day up to a maximum of 30 days. If there is an allegation of a health impacts, then the complaints are investigated within 24 hours of receipt.

Penalties are determined by the TCEQ Enforcement Division. If a violation is alleged, the severity is determined by using the Enforcement Initiation Criteria (EIC), which provides guidance for timeframes and possible enforcement. Most violations that are initially discovered during an investigation are given a timeframe for resolution, unless "formal Enforcement" is determined to be applicable.

There currently is not an official policy when noncompliant sites are closed or a registration for a site is not renewed.

**Comment:** (Testing of Area and Neighboring Wells, Aquifer, and Surface Water) A comment was received asking if the TCEQ is going to verify that neighboring water sources are not contaminated and how the state will measure health concerns for this site. There are concerns about the steps that can be expected to ensure the safety of using surface waters. Another comment requests a study of the Wilcox aquifer be performed to confirm there would be no risk of contamination.

**Response:** The TCEQ is not required to sample and analyze neighboring water sources or aquifers. The primary objective of the TCEQ's Biosolids Program is to ensure that the land application of domestic septage will neither endanger the public health nor degrade the environment. The land application of domestic septage at the appropriate agronomic rates to soils with appropriate permeability and at the recommended slopes, while observing the buffer zones, will not adversely affect water quality. An operator that fails to comply with the draft registration or Commission rules is subject to enforcement actions.

Runoff of domestic septage from the land application areas is prohibited under the TCEQ regulations and the draft registration. The draft registration includes management requirements designed to prevent runoff of domestic septage from the land application unit beyond the active application area. The Applicant is required to apply domestic septage uniformly over the surface of the land under conditions which prevent runoff of the domestic septage beyond the active application area, and they must protect the quality of the surface water and the soils in the unsaturated zone. The Applicant is also prohibited from applying domestic septage during rainstorms or during periods in which surface soils are water saturated, frozen, or snow-covered, and in areas having topographical slopes in excess of eight percent. Furthermore, the draft registration requires the site operator to cease further domestic septage application if runoff from the active application area is evident and to continue to cease domestic septage application until the condition is corrected. As there should be no runoff of material beyond the active application area, the land application of domestic septage should not impact area surface waterways.

The TCEQ has established management requirements in accordance with 30 TAC §312.44 to protect against groundwater contamination, which are provisions incorporated into the draft registration. As mentioned in the previous response above, the Applicant is required to apply domestic septage uniformly over the surface of the land and under conditions that prevent

runoff of domestic septage beyond the active application area to protect the quality of the groundwater, surface water, and the soils in the unsaturated zone.

Also, a special provision has been included in the draft registration which requires installation of water table observation wells if domestic septage is intended to be land applied on certain soils during specific times of the year. Domestic septage application will be prohibited on these soils when the observation wells indicate groundwater within three feet of the oils surface.

Furthermore, the site will be inspected by the TCEQ Region 13 Office on a regular basis. Site inspections are conducted to verify that records are being maintained and the site is being operated in accordance with the requirements of the registration.

**Comment:** (Responsibility of Applicant for Concerns or Possible Contamination) Comments were received in regard to the Applicant being responsible for the cost of testing surface waters to ensure stability and the rights of landowners to seek compensation if their wells show contamination.

There are also concerns of who will be responsible for compensating residents in the area in the event they need medical treatment for health problems and who is legally responsible for future health implications for people in the area. Another comment questioned if there will be settlements for people experiencing health issues to relocate, and to whom would the community go to file a complaint and get compensation for health issues.

**Response:** In accordance with the draft registration, the site operator must comply with detailed management practices designed to protect human health and the environment. The TCEQ has established management requirements for land application units, which are incorporated in the draft registration. In addition, the registration does not allow the operator to maintain or create any nuisance conditions. 30 TAC §312.44(j) requires the Applicant to operate the proposed land application unit in a manner to prevent public health nuisances.

**Comment:** (Impacts on Wildlife) Several comments expressed concern for how wildlife will be impacted if these animals ingest the domestic septage. Some comments note that wildlife could become disease carriers from the domestic septage, negatively affecting the entire ecosystem. Another commentor questioned if hunting and harvesting of wildlife be safe to eat and if testing of deer and birds exposed to untreated human waste will be or has been done.

**Response:** TCEQ regulations and the provisions in the registration, the beneficial land application of domestic septage should not have an adverse impact on wildlife.

Also, 30 TAC §312.44, related to Management Practices, states that land application of domestic septage must not cause or contribute to the harm of a threatened or endangered species of plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.

The Executive Director (ED) acknowledges the concerns about impacts to hunting and fishing but notes that when reviewing an application, the TCEQ does not have the authority nor the jurisdiction to review the effect, if any, the registration will have on the ability to hunt or fish. The TCEQ's jurisdiction is established by the Legislature and limited to the issues set forth in



statute. Accordingly, the ED's review is limited to whether the application and proposed registration comply with the requirements of the applicable TCEQ rules.

The Texas Parks & Wildlife Department has primary responsibility for protecting the state's fish and wildlife resources and provides recommendations to protect fish and wildlife resources to the TCEQ. *See* Tex. Parks & Wildlife Code § 12.001; *see also* 30 TAC § 7.103. For more information on the safety of wildlife, the public may contact the U. S. Fish & Wildlife Service or the Texas Parks & Wildlife Department. U. S. Fish & Wildlife Service may be contacted at 2005 NE Green Oaks Blvd., Suite 140, Arlington, Texas 76006-6247, (817) 277-1100, or the Texas Parks & Wildlife Department may be contacted at 4200 Smith School Road, Austin Texas 78744, (512) 389-4800 or (800) 792-1112.

**Comment:** (Buffer Zone for Residences) A comment questioned if there is any consideration for future occupied dwellings built within buffer zones once the application gets approved, what is the legal course of action for not maintaining buffer zones, and if failing to maintain buffer zones could be immediate grounds to shut down and penalize the land application site.

**Response:** If any occupied residences, schools, churches, businesses are constructed in the future, and are located within 750 feet of where domestic septage is being land applied, then these buffer zones must be put in place if and when a registrant submits an application to renew their registration. As per 30 TAC §312.44(c), buffer zones for established schools, institutions, businesses, or occupied residential structures must be established at the time of issuance of a permit or registration for each land application unit, unless otherwise specified by the commission, and these buffer zones shall be re-evaluated and maintained as needed, upon renewal or major amendment of a permit or registration. The buffer zones that are currently in place for existing structures shall be maintained, as stated in the draft registration.

**Comment:** (Insurance) A comment was received noting that the TCEQ mandates that the Applicant must have environmental impairment insurance. A comment also asked what kind of health insurance can be expected, considering the unknown health risks associated with spreading this material.

**Response:** Environmental impairment insurance is only required for non-political subdivision applicants that apply to for a permit to land apply Class B wastewater treatment plant biosolids. There are no insurance requirements for sites land applying treated domestic septage. The TCEQ does not regulate whether a domestic septage land application site obtain specific health insurance.

**Comment:** (Odors) There were comments concerned with odors, including a question regarding how odors can be scientifically quantified.

**Response:** TCEQ incorporates management practices into the proposed registration that require the Applicant to select and operate its site for the land application of domestic septage in a manner to prevent public health nuisances pursuant to 30 TAC § 312.44(j). For example, the management practices related to nuisance controls, found at 30 TAC § 312.44(j), do not allow the Applicant to maintain or create any nuisance odor conditions. If any significant nuisance conditions related to objectionable odors do occur, 30 TAC § 312.44(j)(3)(B) requires the

Applicant to minimize objectionable odors through incorporation of the domestic septage into the soil, minimize dust migration from the site and access roadways, or by taking some other type of corrective action. The proposed registration incorporates buffer zones that prohibit a land application area from being located closer than 750 feet from an established school, institution, business, or occupied residential structure and 50 feet from a public right of way or property boundary pursuant to 30 TAC § 312.44(c)(2)(D) and (E) to minimize off-site odor concerns.

If members of the public experience nuisance odor from the land application area or the land application activities create any nuisance conditions, the TCEQ Regional Office may be contacted to investigate whether a violation of the registration has occurred by calling 210-490-3096 or the toll free 24-hour complaints hot line at 888-777-3186. Citizen complaints may also be filed online at the following website: [www.tceq.texas.gov/compliance/complaints](http://www.tceq.texas.gov/compliance/complaints).

On a complaint basis, regional investigators will investigate. Regional investigators may request assistance from the complainant by asking them to maintain an Odor Log, which is designed for the complainant to provide information about odor conditions that the region cannot experience due to frequency, timing, distance, etc. Investigators also can employ a FIDO Chart (Frequency, Intensity, Duration, and Offensiveness). The chart consists of four color-coded grids (tables) that are used to evaluate whether a nuisance violation should be issued based on these four characteristics and includes levels of odor offensiveness (Highly Offensive to Not Unpleasant), the intensity of the observed odor (Very Strong to Very Light), along with frequency and duration of the odor being plotted on the chart.

If the regional investigator documents a violation of TCEQ regulations or the registration, then appropriate action may be taken, which may include referral for an enforcement action. Additionally, nothing in the proposed registration limits the ability of nearby landowners to seek relief from a court or use common law remedies in response to trespass, nuisance, other causes of action in response to activities that may or do interfere with the use and enjoyment of their property, or that may or do result in injury or adverse effects on human health or welfare, animal life, vegetation, or property.

**Comment:** (Trash/Debris) There are concerns about how solid human waste, toilet paper, sanitary napkins, paper towels, prescription medicines, legal and non-legal drugs will be handled, and how trash ending up on neighbors' land will be addressed.

**Response:** Title 30 TAC §312.44(j) states that debris must be prevented from blowing or running off site boundaries or into surface waters. Debris is defined in § 312.8(25) as solid material such as rubber, plastic, glass, or other trash that may be collected with domestic septage, and this solid material is visibly distinguishable from the domestic septage. §312.44(j) also states that prevent nuisance conditions from occurring, the operator shall develop and implement best management practices (BMPs) to minimize off-site tracking of domestic septage and sediment during the transport of domestic septage to and from the land application unit or storage area, and to include at a minimum, removing tracked material, to the extent practicable, by the end of each day of operation at the site and either returning it to the site or otherwise disposing of it properly. The documented BMPs shall be retained by the Applicant and made by readily available for review by a TCEQ representative.

The registration requires the Applicant to conduct a visual inspection and remove any debris on the site after each application of domestic septage to the land. The Executive Director has no reason to believe that domestic septage will contain trash in amounts that will impact human health and the environment.

**Comment:** (Air Quality) A comment was received expressing concern over air quality, from the proposed land application unit. Another comment asked if test options are available to measure amounts of sulfur in the air to ensure it must remain under a specific threshold.

**Response:** In regard to measuring sulfur in the air, the TCEQ has equipment that can be used, with the most common one being the Jerome hydrogen sulfide analyzer, which is mainly used to measure hydrogen sulfide, but can also be used to measure reduced sulfur compounds. According to TCEQ investigators, since the equipment is being used for field purposes and not the lab, the levels obtained from the devices are going to be more average than precise.

As for specific thresholds, the agency does have regulations under 30 TAC 112 for sulfur compounds. There is no singular threshold that is used, as different companies and sites might register different limits that they are permitting for. For sites that do not have to obtain air permits/registrations, but their activities might have sulfur compounds and byproducts, which is when 30 TAC 112 is used, but that is more for documenting nuisance than a direct threshold.

**Comment:** (Storage Area Concerns) A commentor states the storage of domestic septage in frac tanks staged in a treatment pond on the property can bring pests and rodents into the area that may contain and transmit diseases. Other comments expressed concerns that the staging area is within 750 feet of an occupied dwelling, and that Appendix C is missing details from the official application.

**Response:** The Applicant is required to design, construct, and operate the storage area in a manner which protects human health and the environment, as per the requirements of 30 TAC 312.50(a)(3). This rule also requires that domestic septage shall be stored away from odor receptors in order to prevent off-site dust migration from the storage area and to prevent nuisance odors. Furthermore, 30 TAC 312.50(a)(5) requires that the request for the storage area outline measures to be taken to minimize vermin, or vectors, and avoid public health nuisances, such as odors.

**Comment:** (Concerns over Truck Traffic on Roads) There were several comments expressing concern over safety and truck traffic traveling in and out of this location.

**Response:** The ED acknowledges the significance of these concerns. While the Texas Legislature has given the TCEQ the responsibility to protect water quality, the water quality permitting process is limited to controlling the discharge of pollutants into or adjacent to water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. Section 26.027 of the Texas Water Code authorizes the TCEQ to issue authorizations to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes, and coastal waters. The ED, through the Water Quality Division, has no jurisdiction to address higher traffic volumes or road maintenance.

**Comment:** (Property Values) There were comments concerning how landowners will be compensated when the value of their properties fall, and who will be legally responsible for a decline in neighboring property values when runoff from the site impacts area properties and water sources.

**Response:** The TCEQ does not have jurisdiction under the Texas Water Code, Texas Health and Safety Code, or Commission regulations to address or consider property values in its determination of whether to issue a registration for the beneficial use land application of domestic septage. TCEQ's jurisdiction is established by the Legislature and limited to the issues set forth in statute. Accordingly, the Executive Director's review is limited to whether the application and proposed operation meet the requirements of the applicable TCEQ rules.

For additional information about this application, contact Kellie Crouch at (512) 239-2435.

*Kellie Crouch*

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Kellie Crouch  
Land Application Team  
Water Quality Assessment Section (MC  
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*June 8, 2023*

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Date