**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

APPLICATION TO REGISTER A SITE FOR THE BENEFICIAL USE OF DOMESTIC SEPTAGE

CHECKLIST

Complete and submit this checklist with your application.

Applicant's Name: Click here to enter text.

Registration Number (if assigned): Click here to enter text.

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

Y N

Administrative Report   

Attachment A: Core Data Form   

Attachment B: General Highway Map   

Attachment C: USGS Topographic Map   

Attachment D: USDA NRCS Soils Map   

Attachment E: Copy of Deed   

Attachment F: Transporters’ Registrations   

Attachment G: FEMA Map   

Attachment H: Soil Analyses Lab Sheets   

Landowner Map and List (**not required for renewals**)   

Required Signature Pages   

Supplement #1 For Individuals   

Technical Report   

Appendix A: Application Rate Calculations   

Appendix B: On-Site Storage   

For TCEQ Use Only

Segment Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_County \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Expiration Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Region \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Registration Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

APPLICATION TO REGISTER A SITE FOR THE BENEFICIAL USE OF DOMESTIC SEPTAGE

ADMINISTRATIVE REPORT

Please contact the Water Quality Division’s Applications Review and Processing Team at 512-239-4671 if you have questions about completing this form.

# SECTION 1. TYPE OF APPLICATION

  New (original site that was not previously registered)

  New (previously registered but registration was allowed to expire or was canceled)

  Major Amendment with Renewal (changes to substantive provisions of the registration)

  Minor Amendment *without* Renewal (including non-substantive provisions of the registration, the expiration date will remain the same)

  Renewal (with or without minor amendment changes)

For existing registrations, provide the registration number: Click here to enter text.

For amendments, describe the proposed changes in the text box below:

|  |
| --- |
| Click here to enter text. |

# SECTION 2. APPLICANT INFORMATION

1. Provide the legal name of the applicant. The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

Click here to enter text

1. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN Click here to enter text.
2. List the contact information for this applicant.

Contact Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

# SECTION 3. CO-APPLICANT INFORMATION

Complete this section only if another person or entity is required to apply as a co-permittee. For guidance, please see the instructions at the end of this document.

1. Provide the legal name of the co-applicant. The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

Click here to enter text.

1. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN Click here to enter text.
2. List the contact information for this applicant.

Contact Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

# SECTION 4. APPLICATION CONTACT INFORMATION

This is the person TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner or authorized agent.

1. **Application Contact (Operator):**

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

Application Contact First and Last Name: Click here to enter text.

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

1. **Application Contact (Landowner/Authorized Agent):**

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

Application Contact First and Last Name: Click here to enter text.

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

# SECTION 5. REGISTRATION CONTACT INFORMATION

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

**A.** **Registration Contact (Annual Report Contact):**

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

Registration Contact First and Last Name: Click here to enter text.

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

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

**B.** **Registration Contact:**

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

Registration Contact First and Last Name: Click here to enter text.

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

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

# SECTION 6. BILLING CONTACT INFORMATION

Please identify the individual for receiving the annual fee invoices.

First and Last Name: Click here to enter text.

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

# SECTION 7. REGULATED ENTITY (SITE) INFORMATION

1. Site Name: Click here to enter text.
2. If this is an existing registered site, provide the Regulated Entity Number (RN) issued to this site. RN Click here to enter text.
3. Owner of the beneficial land use area (attach an additional sheet if more than one landowner).

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

First and Last Name: Click here to enter text.

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text.

1. **Site Location**

Is the location of the application site used in the existing registration accurate?

Yes  No

If **YES**, skip to Item E. If **NO**, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site doesn’t have a physical address, provide a location description such as: “*located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1*”. Click here to enter text.

County where the site is located: Click here to enter text.

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

1. **Application Site Jurisdiction**

Complete ONE of the following statements (use which statement best applies):

The application site is within the city limits of Click here to enter text.

The application site is within the extraterritorial jurisdiction (ETJ) of Click here to enter text.

The application site is outside the ETJ of Click here to enter text.

1. **Property Acreage**

Total acreage listed in legal description, including the application area and buffer zones: Click here to enter text.

1. **Application Area Acreage**

Total acreage where septage may be applied, excluding the buffer zones:

Click here to enter text.

# SECTION 8. MISCELLANEOUS INFORMATION

1. Did any person who was formerly employed by the TCEQ represent your company and get paid for services regarding this application?

Yes    No

If yes, provide the name(s) of the former TCEQ employee(s) and their functional duties while at the TCEQ: Click here to enter text.

1. Is the site located on Indian Lands? Yes    No
2. Is any permanent school fund land affected by this application?

Yes    No

**If yes**, provide the location, forseeable impacts, and effects this application has on the land(s). Click here to enter text.

1. Is the production area located within the protection zone of a sole source drinking water supply? Yes     No
2. Delinquent Fees and Penalties:

Do you owe fees to the TCEQ? Yes    No

Do you owe any penalties to the TCEQ? Yes    No

If you answered yes to either of the above questions, provide the amount owed, the type of fee or penalty, and an identifying number. Click here to enter text

# SECTION 9. ATTACHMENTS

1. **TCEQ Core Data Form**

Submit a TCEQ Core Data Form (TCEQ-10400) for each applicant/co-applicant.

Attachment Number: Click here to enter text.

1. **General Highway (County) Map**

Submit a General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: Click here to enter text.

1. **United States Geological Survey (USGS) Topographic Map**

Submit a USGS Topographic Map of the land application site. See instructions for information that must be displayed on the map.

Attachment Number: Click here to enter text.

1. **USDA Natural Resources Conservation Service (NRCS) Soil Map**

Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: Click here to enter text.

1. **Copy of Deed for the Site**

Submit copies of the meets and bounds legal description and the deed of record.

Attachment Number: Click here to enter text.

1. **TCEQ Transporters Registration Approval Documents**

Submit a copy of the TCEQ Transporter Registration approval documents.

Attachment Number: Click here to enter text.

1. **Federal Emergency Management Agency (FEMA) Map**

Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries along with the appropriate legend. Domestic septage may not be land applied within a designated **floodway (**see instructions for definition).

Attachment Number: Click here to enter text.

1. **Soils Analyses Laboratory Results Sheets**

Attach the soil sampling laboratory analysis results sheets for each composite sample. Provide results for all pollutants listed in the instructions at the end of this document. Use the lab results to complete the tables in the Technical Report.

Attachment Number: Click here to enter text.

# SECTION 10. NOTICE INFORMATION

This section is only required for **New and Major Amendment** applications.

1. **Individual to be listed as the contact in the notice**

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

First and Last Name: Click here to enter text.

Organization Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

1. **County Judge**

Provide information for the County Judge in each county where the site is located. Attach an additional page if the site is located in more than one county.

First and Last Name: Click here to enter text.

Name of County: Click here to enter text.

Title: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text.

1. **Landowner map**.

Attach a landowner map or drawing, with scale, that includes the following, as applicable.

* The applicant’s property boundaries;
* The land application unit’s boundaries within the applicant’s property boundaries;
* The property boundaries of all contiguous property owned or under the control of the applicant and the landowners;
* The property boundaries of all landowners bordering the applicant’s property.

Attachment Number: Click here to enter text.

1. **Landowner list.**

Attach a separate list of the landowners' names and mailing addresses. The list must be cross-referenced to the landowners map.

Attachment Number: Click here to enter text.

1. **Landowner list media**.

Indicate the format of the landowners list.

USB/flash drive    4 sets of labels

1. **Landowner data source**. Provide the source of the landowners' names and mailing addresses. Click here to enter text

# LABORATORY ACCREDITATION

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

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

The applicant should review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application.

**CERTIFICATION:**

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

Printed Name: Click here to enter text.

Title: Click here to enter text.

Signature: Date:

# APPLICANT SIGNATURE PAGE

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

Registration Number: Click here to enter text.

Applicant Name: Click here to enter text.

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

I certify under penalty of law that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this registration.

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

Signatory Name: Click here to enter text.

Title: Click here to enter text.

Signature (use blue ink): Date:

SUBSCRIBED AND SWORN to before me by the said on

this day of , 20 .

My commission expires on the day of , 20 .

(Seal) Notary Public

County, Texas

# LANDOWNER OR LEASE AGREEMENT HOLDER SIGNATURE PAGE

**Required if the landowner or lease agreement holder is not the applicant or co-applicant. Each landowner or lease agreement holder must submit an original, separate signature page.**

Registration Number: Click here to enter text.

Applicant Name: Click here to enter text.

I certify, as the owner/lease agreement holder of the land described in this application, that I have all rights and covenants to authorize the applicant for this registration to use this site for the land application of water treatment residuals.

*Note: If this page is signed by a lease agreement holder, please* ***provide a copy of the******lease agreement****.*

Signatory Name: Click here to enter text.

Title: Click here to enter text.

Signature (use blue ink): Date:

SUBSCRIBED AND SWORN to before me by the said on

this day of , 20 .

My commission expires on the day of , 20 .

(Seal) Notary Public

County, Texas

Supplement #1

Individual Information

Complete this supplement if the applicant or co-applicant is an individual. Make additional copies of this attachment for each individual, if needed. **This information is only required for landowners or lease agreement holders if they are also an applicant or co-applicant.**

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

Full Legal Name, including middle name: Click here to enter text.

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

State that Issued the License or Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

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

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

E-mail Address: Click here to enter text.

For TCEQ Use Only

Customer Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Regulated Entity Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Registration Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

APPLICATION TO REGISTER A SITE FOR THE BENEFICIAL USE OF DOMESTIC SEPTAGE

TECHNICAL REPORT

Please contact the Water Quality Division’s Land Application Team- Biosolids Group at 512-239-4671 if you have questions completing this form.

# SECTION 1. SITE MANAGEMENT AND HISTORY

1. Describe the equipment and methods to be used to evenly distribute the septage or to incorporate the septage into the soil:

Click here to enter text.

1. Describe how often septage will be applied to the site and when (i.e., during which times of the year):

Click here to enter text.

1. Has septage been previously applied to this site? Yes    No
2. Please provide a description of the planned use (as well as historic use if this is an amendment or renewal application) of the application area, including the type of crop(s) grown, crop rotation, tillage practices and previous septage application amounts (gallons) and rates (gallons per acre).

Click here to enter text.

# SECTION 2. DOMESTIC SEPTAGE INFORMATION

Describe the source(s) of the septage (e.g. septic tanks, cesspools, etc.) and the processes generating the septage (e.g., residences, parks, etc.).

Click here to enter text.

# SECTION 3. PATHOGEN AND VECTOR ATTRACTION REDUCTION REQUIREMENTS

**Note:** 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.**

1. Please check each of the following to ensure that the pathogen reduction and vector attraction options will be met prior to land application of domestic septage.

Yes   Reduction of pathogens (as stated in *30 TAC §312.82*) prior to land application by raising the pH to 12 or higher by alkali addition (lime) and, without the addition of more alkali, remaining at 12 or higher for a period of 30 minutes.

Yes   Reduction of vector attraction (as stated in *30 TAC §312.83*) prior to land application by raising the pH to 12 or higher by alkali addition (lime) and, without the addition of more alkali, remaining at 12 or higher for a period of 30 minutes.

1. If domestic septage is land applied to agricultural land, forest, or a reclamation site, the site restrictions in *30 TAC §312.82(b)(3)* are met. Please indicate which type of site restrictions are utilized (check all that apply):

  Food crops with harvested parts below the land surface must not be harvested for at least 38 months after land application of domestic septage when the domestic septage remain on the land surface for less than four months prior to the incorporation into the soil.

  Food crops, feed crops, and fiber crops must not be harvested for at least 30 days after land application of domestic septage.

  Domestic livestock must not be allowed to graze on the land for at least 30 days after land application of domestic septage.

  Other. Please specify: Click here to enter text.

# SECTION 4. WELL DATA

1. Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation (on a separate page) indicating why.

Attachment Number: Click here to enter text.

* The boundaries of the application area;
* All wells located on the application area;
* All wells located within 500 feet of the application area, including off-site wells of other landowners;
* All springs and seeps onsite and within 500 feet of the property boundaries;
* All surface waters in the state onsite and within 500 feet of the property boundaries; and
* All faults and sinkholes onsite and within 500 feet of the property.

1. Show well locations and numbers on the USGS map and cross reference to the numbers on the list below. Attach additional pages as necessary to include all of the wells.

Table 1. Well Information.

| **Well #** | **Well Use**  **(drinking, irrigation, sampling, etc)** | **Producing?**  **(Yes/No)** | **Open, cased\*, capped, or plugged?** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

\* Proper casing is a minimum of 10 feet of casing and cement. Casing, plugging and capping rules can be found at *16 TAC §76.72*.

The site operator shall ensure that the following action will be taken on each well before septage application begins on the site.

| **Condition of Well** | **Action to be Taken** |
| --- | --- |
| If producing and cased | No action necessary |
| If producing and not cased | Case or describe other means of protection |
| If non-producing and cased | Must plug or cap before septage application |
| If non-producing and not cased | Must plug before septage application |

# SECTION 5. SOIL DATA

1. Use the USDA Natural Resources Conservation Service (NRCS) soil descriptions to complete the following table. Refer to “Physical and Chemical Properties Table” and “Engineering Tables” in the appropriate county soil survey.

Table 2. Soil Data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Map**  **Symbol** | **Soil Type** | **Maximum slope** | **pH** | **Depth to**  **Bedrock\* (Inches)** | **Depth to**  **Groundwater**  **(Feet)** | **Permeability**  **(Inch/hour)** | **\* Soil Depth**  **(Inches)** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

\* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.

1. If soil depth is less than two feet, please provide the rationale for utilizing soils thinner than two feet. The rationale should include site specific investigation results.

Click here to enter text.

1. Soil Data Table Completed By: Click here to enter text.
2. Data Source(s): Click here to enter text.
3. Date Completed: Click here to enter text.
4. List Soils with Restrictive Characteristics (refer to the list below):

Click here to enter text.

**Restrictive Soil Characteristics:**

Soils with at least an "occasional flooding" classification in the soil legend may flood between 5 and 50 times in 100 years.

Seasonal groundwater or groundwater table shall be below the treatment zone at least:

3 feet for soil with permeability of < 2 in/hr;

4 feet for soil with permeability of 2 - 6 in/hr;

For soil permeabilities of > 6 in/hr, the TCEQ will review each case individually.

# SECTION 6. SOIL SAMPLING TESTING RESULTS

Complete this table by entering the soil sample analytical results for the land application site.

**Directions:**

1. For each parameter, indicate the composite sample results at the appropriate soil depth (0-6” or 6-24”). Report sample results in mg/kg unless otherwise noted.
2. If the land application site is greater than 80 acres, more than one composite sample is required. Make copies of this page if needed for sites greater than 320 acres.
3. Report results of ‘non-detect’ as the quantification level or detection level.

Table 3. Soil Sampling Results

| Parameter in mg/kg | Samp. 1  0-6” | Samp. 1  6-24” | Samp. 2  0-6” | Samp. 2  6-24” | Samp. 3  0-6” | Samp. 3  6-24” | Samp. 4  0-6” | Samp. 4  6-24” |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nitrate Nitrogen |  |  |  |  |  |  |  |  |
| Ammonium Nitrogen |  |  |  |  |  |  |  |  |
| Total Kjeldahl Nitrogen |  |  |  |  |  |  |  |  |
| Phosphorus (plant available) |  |  |  |  |  |  |  |  |
| Potassium (plant available) |  |  |  |  |  |  |  |  |
| Sodium (plant available) |  |  |  |  |  |  |  |  |
| Magnesium (plant available) |  |  |  |  |  |  |  |  |
| Calcium (plant available) |  |  |  |  |  |  |  |  |
| Electrical Conductivity in dS/m |  |  |  |  |  |  |  |  |
| Soil Water pH (S.U.) |  |  |  |  |  |  |  |  |
| Total Arsenic |  |  |  |  |  |  |  |  |
| Total Cadmium |  |  |  |  |  |  |  |  |
| Total Chromium |  |  |  |  |  |  |  |  |
| Total Copper |  |  |  |  |  |  |  |  |
| Total Lead |  |  |  |  |  |  |  |  |
| Total Mercury |  |  |  |  |  |  |  |  |
| Total Molybdenum |  |  |  |  |  |  |  |  |
| Total Nickel |  |  |  |  |  |  |  |  |
| Total Selenium |  |  |  |  |  |  |  |  |
| Total Zinc |  |  |  |  |  |  |  |  |

For land application sites greater than 80 acres, use the values from the previous table (Table 1) to complete this calculation for **each** composite sample. Then take the highest NO3-N calculated in Column E and enter in Line 2B in Appendix A: Agronomic Rate Calculations.

Table 4- Available Nitrogen in the Soil

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **A.**  **NO3-N (mg/kg) in 0”-6” zone** | **B.**  **0”-6” zone**  **[A x 2]** | **C.**  **NO3-N (mg/kg) in 6”-24” zone** | **D.**  **6”-24” zone**  **[C x 6]** | **E.**  **Nitrogen Available in the Soil**  **[B + D]** |
| Samp. 1 |  |  |  |  |  |
| Samp. 2 |  |  |  |  |  |
| Samp. 3 |  |  |  |  |  |
| Samp. 4 |  |  |  |  |  |

# APPENDIX A

# SEPTAGE APPLICATION RATE

# STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text.

Nitrogen Requirement, in lb/yr: Click here to enter text.

Cool Season Intended Crop(s): Click here to enter text.

Yield Goal: Click here to enter text.

Nitrogen Requirement, in lb/yr: Click here to enter text.

Provide the data source for the nitrogen requirements above.

Click here to enter text.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* in lbs/yr Click here to enter text.

2B. Nitrogen available in soil\*\* Click here to enter text.

**2C. Nitrogen amount still needed (lbs/acre/yr)**

Line 2A – Line 2B Click here to enter text.

\*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop.

\*\*Line 2B = 2\*NO3-N (ppm)(in the 0-6" soil depth) + 6\*NO3- N(ppm)(in the 6-24" soil depth). For land application sites greater than 80 acres, use the highest value calculated in Section 6-Table 4 across all composite samples and enter in Line 2B.

# STEP 2. CALCULATE ANNUAL WHOLE APPLICATION RATE

The annual whole application rate (AWAR) is based on the nitrogen requirements of the crop, in gallons per acre per year (365-day period).

AWAR = N (Line C) / 0.0026 = Click here to enter text. gal/acre/yr

AWAR = Annual application rate in gallons per acre per year (365-day period).

N = Amount of nitrogen, in pounds per acre per 365 day period, for the crop.

If the land application unit is located in a Major Sole-Source Impairment Zone, then please provide a copy of a nutrient management plan that has been prepared by a certified nutrient management specialist in accordance with the practice standards of the Natural Resources Conservation Service of the United States Department of Agriculture, and if the phosphorous level in the soil is greater than 200 parts per million, you must also submit a detailed Nutrient Utilization Plan.

Attachment Number: Click here to enter text.

# APPENDIX B

# ON-SITE STORAGE

If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per *30 TAC §312.50* unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. The on-site storage area must be shown on the USGS topographic map submitted with the application, including the major features of the storage area (berms, tanks, pads, liners, stormwater retention, etc.). No treatment of the materials can be authorized under a registration.

1. Provide a complete description of operational plans for the temporary storage including all steps to be taken to control odors, vectors and other nuisance conditions.

Click here to enter text.

1. Identify the location of the temporary storage area(s) on the USGS, topographic map submitted with the application, including all main features of the storage area(s). The intent of this requirement is to provide enough detail on the map to ensure adequate measures are taken to protect the environment.

Attachment Number: Click here to enter text.

1. Provide the certifications required by *30 TAC §312.50*.

Attachment Number: Click here to enter text.

1. Provide a full explanation of proposed spill prevention and cleanup methods.

Click here to enter text.

1. Provide a full description of the method for stormwater runoff collection and disposal.

Click here to enter text.

1. Describe methods to be used to ensure no loads of septage remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by *30 TAC §312.50*) when needed.

Click here to enter text.

APPLICATION FOR REGISTRATION TO LAND APPLY DOMESTIC SEPTAGE

INSTRUCTIONS

# GENERAL INFORMATION

# Purpose of the Application

This form is to be used to:

* **Register a new** Beneficial Land Use (BLU) site to land apply Domestic Septage;
* Submit an **amendment** to change acreage, existing provisions, or any other change to a registered BLU site to land apply domestic septage; or
* **Renew** an existing BLU registration site to land apply Domestic Septage.

# Who Should Apply?

**This application must be submitted by the site operator**. A Signature Page must be completed for each applicant and each landowner if the landowner is different from the site operator.

A permit must be transferred when a change in ownership or operator occurs. A transfer application (TCEQ-20031) must be submitted at least 30 days before the proposed transfer date.

# When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

# Where to Send the Application Form

**One original and three copies** of the application, including attachments, must be provided to the Applications Review and Processing (ARP) Team at the address below:

Regular U.S. Mail:

TCEQ

ARP Team, MC 148

PO Box 13087

Austin TX 78711-3087

Express Mail or Hand Delivery:

TCEQ

ARP Team, MC 148

Building F Room 2101

12100 Park 35 Circle

Austin TX 78753

# TCEQ Contact List

Application Forms or Administrative Information, Attn: ARP Team: 512-239-4671

Technical Information, Attn: Biosolids Group: 512-239-4671

Environmental Law Division: 512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

# Procedural Information

1. The Executive Director's staff will review the application to make sure it is administratively complete. The review staff may request additional information to complete or clarify questions. An incomplete application will be returned in accordance with *30 TAC §281.18* if adequate information is not provided in a timely manner.
2. After the application is administratively complete, the Office of Chief Clerk will send a notice of receipt and administrative completeness to the adjacent landowners (not applicable for renewal applications), state agencies, and county officials. The Office of Chief Clerk will send a complete copy of the application with a copy of the notice of receipt and administrative completeness to the County Judge where the site is located.
3. After the 30-day comment period (not applicable for renewal applications), the review staff will respond to any comments submitted concerning the site and begin the technical review.
4. The Commission encourages the applicant to contact interested parties and the public prior to filing the application to initiate a pre-application meeting to provide a forum where controversial areas or concerns may be resolved.

# Selected General Definitions (From *30 TAC § 312.8*)

**Agronomic rate** - The whole application rate designed: (A) to provide the amount of nitrogen needed by the crop or vegetation grown on the land; and (B) 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.

**Beneficial Use** - Placement of domestic septage onto land in a manner which complies with the requirements of Subchapter B of 30 TAC §312 (relating to Land Application for Beneficial Use), and does not exceed the agronomic need or rate for a cover crop or any metal or toxic constituent limitations which the cover crop may have.

**Domestic septage** - 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.

**Executive Director** - The executive director of the Texas Commission on Environmental

Quality or his /her designee.

**Floodway-** 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.

**Groundwater** - Water below the land surface in the saturated zone.

**Industrial wastewater** - Wastewater generated in a commercial or industrial process.

**Land Application or land apply or land applied** - The spraying or spreading of domestic septage onto the land surface; the injection of domestic septage below the land surface; or the incorporation of domestic septage into the soil so that the domestic septage can either condition the soil or fertilize crops or vegetation grown in the soil.

**Land Application Unit –** An area where materials are applied onto or incorporated into the soil surface for beneficial use or for treatment and disposal, where the disposal occurs within five feet of the surface of the land. The term does not include manure spreading operations.

**Off-site** - Property which cannot be characterized as "on-site".

**On-site** - The same or contiguous property owned, controlled, or supervised by the same person. If the property is divided by public or private right-of-way, the access shall be by crossing the right-of-way or the right-of-way shall be under the control of the person.

**Operator** - The person responsible for the overall operation of a facility or beneficial use site.

**Owner** - The person who owns a facility or part of a facility.

**Pathogenic organisms--**Disease-causing organisms including, but not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

**Person** - An individual, association, partnership, corporation, municipality, state or federal agency, or an agent or employee thereof.

**Process or Processing** - For the purposes of this chapter, these terms shall have the same meaning as "treat" or "treatment".

**Sewage Sludge** - Solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

**Transporter** - Any person who collects, conveys, or transports sewage sludge, water treatment plant sludges, grit trap waste, grease trap waste, chemical toilet waste and/or septage by roadway, ship, rail, or other means.

**Vector attraction** - The characteristic of domestic septage that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

**Additional definitions are found in *30 TAC §312.8*.**

# INSTRUCTIONS FOR THE ADMINISTRATIVE REPORT

# Section 1. Type of Application

Select the appropriate type of application for the site being registered.

For existing registrations, provide the TCEQ registration number.

For amendment applications, describe the proposed changes and justify their need.

# Section 2. Applicant Information

Provide the full legal name of the site operator (i.e. applicant). If the site operator is an existing TCEQ customer, provide the Customer Number (CN) for the site operator. The Customer Number is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the site operator is not an existing TCEQ customer, leave this item blank.

Provide the following contact information for the applicant: mailing address, phone number, fax number (if available), and email address.

# Section 3. Co-Applicant Information

Provide the full legal name of the co-applicant. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) for the co-applicant. The Customer Number is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the co-applicant is not an existing TCEQ customer, leave this item blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number (if available), and email address.

# Section 4. Application Contact Information

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner or authorized agent.

# Section 5. Registration Contact Information

Provide the name and contact information for persons that TCEQ can contact regarding the annual report or if additional information is needed during the term of the registration.

# Section 6. Billing Contact Information

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices. According to *30 TAC §305.66*, failure to pay fees is good cause for registration denial or revocation. If an applicant has outstanding fees, a proposed registration application will not be considered for approval by the Commission or Executive Director. For account balance information, contact the Financial Administration Division, Revenue Section, at (512) 239-0344.

# Section 7. Regulated Entity (Site) Information

1. Provide the name of the site as known by the public in the area where it is located.
2. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the site is not currently regulated by TCEQ, leave this item blank.
3. Provide the name and contact information for the landowner of the application site.
4. Give the site location description and county; list the coordinates in decimal degrees.
5. Complete one of the statements related to the location of the application site and the nearest city. If the site is located outside the extraterritorial jurisdiction of a city, complete the last statement and insert the name of the nearest city.
6. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.
7. Provide the total acreage where septage may be applied. Do not include buffer zones.

# Section 8. Miscellaneous Information

1. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.
2. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the ARP Team at 512-239-4671.
3. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.
4. Identify if the production area is located within the protection zone of a sole source drinking water supply. If the land application unit is located in a Major Sole-Source Impairment Zone, then a copy of a nutrient management plan is required.
5. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties. The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment: <https://www.tceq.texas.gov/agency/financial/fees/delin>. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

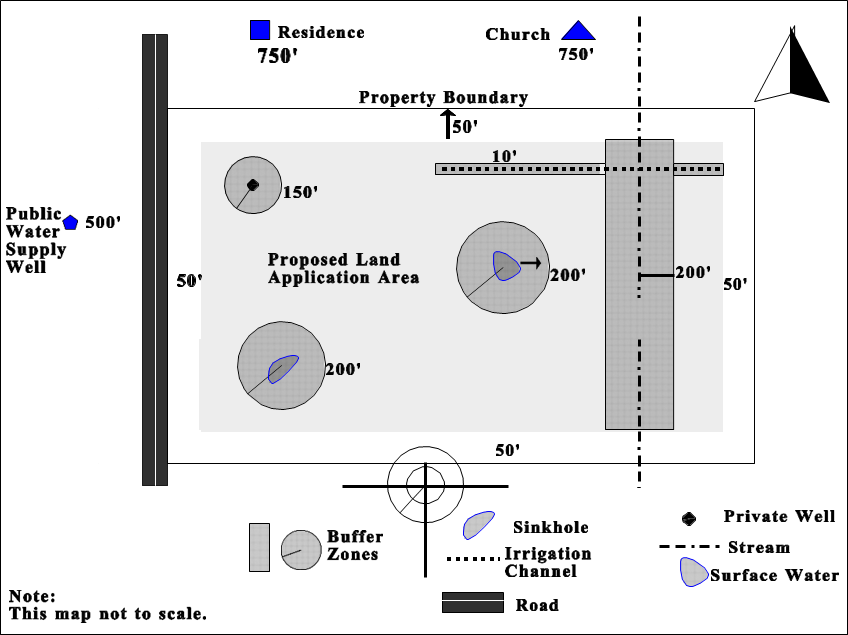
**Please note:** The TCEQ will not issue, amend, or renew permits, registrations, certifications, or licenses to an entity or person who is delinquent on a penalty or fee owed to the TCEQ. The TCEQ will not declare any application administratively complete that is submitted by a person or entity who is delinquent on a fee or penalty until the fee or penalty is paid, or if on an approved installment plan, that payments under the plan are current. If after the application is considered administratively complete, we discover that the owner or entity who submitted the application is delinquent on a fee or penalty, the TCEQ will withhold final action on an application until the fee or penalty is paid and the account is current.

# Section 9. Attachments

1. Complete and submit the TCEQ Core Data Form (TCEQ-10400) for each applicant and co-applicant. This is not required for the landowner if they are not an applicant or co-applicant.
2. Submit a color General Highway (County) Map showing all boundaries of the site area and all areas within 1,000 feet of the area boundaries. A copy may be submitted for renewal or amendment applications in which the site and land application area boundaries have not changed. For new applications, submit an original map. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: <http://www.txdot.gov/travel/county_grid_search.htm>
3. Submit a USGS topographic map on 8 ½ x 11” paper. A copy may be submitted for renewal or amendment applications in which the site and land application area boundaries have not changed. For new applications, submit an original map. Maps are available online at <https://www.usgs.gov/programs/national-geospatial-program/topographic-maps> or by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:

* All residences and occupied structures within 1,000 feet of the site (if the site is on the border of the USGS map, the adjoining map is also needed).
* The location of all wells, structures, and public water supply facilities on-site and within 500 feet of the application area (including those off-site).
* The boundaries of the application area within the property boundaries including the labeled buffer zones:
* A 200-foot buffer zone from surface water; or a 33-foot buffer zone from surface water if there is established grass that will not be harvested between the application area and the water and if the domestic septage will always be incorporated into the soil within 48 hours of application;
* A 150-foot buffer zone from a private water supply well;
* A 500-foot buffer zone from a public water supply well, intake, public water supply spring or similar source, public water supply treatment plant, or public water supply elevated or ground storage tank;
* A 200-foot buffer zone from a sinkhole or other conduit to groundwater (including all inactive wells that have not been plugged);
* A 750-foot buffer zone from any school, institution, business, or occupied residence;
* A 50-foot buffer zone from a public right-of-way (roads, railways, etc.);
* A 10-foot buffer zone from an irrigation conveyance canal; and
* A 50-foot buffer zone from property boundary.

The following is an example of buffer zones.



1. Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries along with a soil legend and necessary interpretative information. Identify on this map the **location of each grab sample** of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.
2. Submit a copy of the meets and bounds legal description and the deed of record for the site.
3. Submit a copy of the TCEQ transporter’s registration approval documents.
4. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries along with the appropriate legend. Several options are available for obtaining these: They can be obtained by requesting a Flood Insurance Study (no charge) from the FEMA Flood Map Distribution Center at 800-358-9616. The flood insurance study will contain a booklet and the FEMA maps. The maps can also be downloaded from the following web site: <https://msc.fema.gov/portal/search>. Domestic septage may not be land applied within a designated **floodway (**see definition).
5. Attach the soil analysis for the land application unit. Provide the laboratory results sheets for each composite sample at each depth zone. Data for soil sampling must be from no more than one year ago. Soil reports shall include fertilizer recommendations for the crop yield goal.

# Section 10. Notice Information

This section is only required for **new and major amendment** applications; it is not required for renewal or minor amendment applications. TCEQ will develop a public notice that is sent to adjacent landowners and the County Judge in the county where the application site is located.

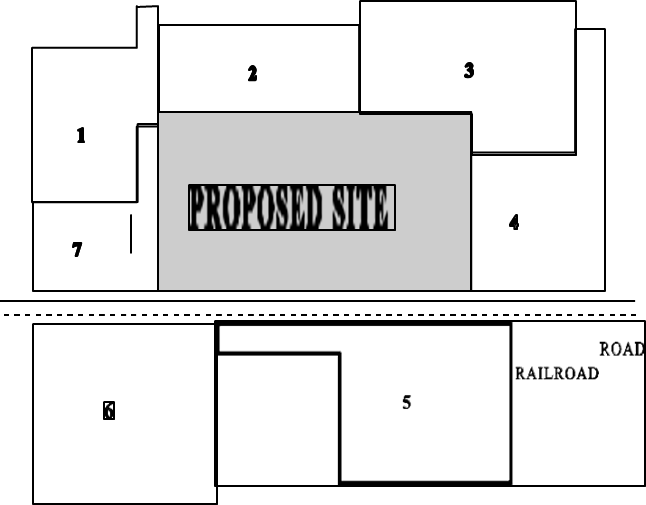
1. Provide the name and contact information for an individual available to answer questions from the public.
2. Provide the name and contact information for the County Judge in each county where the site is located. If the site is located in more than one county, attach an additional page.
3. Attach a map that shows all landowners bordering the site. These persons are subsequently mailed the notice of the application. The map must show:

* The property boundaries of all contiguous land owned or under the control of the applicant and/or the landowner(s). If multiple properties comprise the site or if the landowner(s) has multiple tracts that adjoin, the whole area must be shown.
* The boundaries of the adjoining properties (i.e., all sharing a property line or separated by only a road, railway, river, etc.).

1. Attach a list of each of the adjoining landowners identified on the Landowner Map. For each adjoining landowner, provide the landowner's name and complete mailing address. This information can be obtained from the County Tax Office, local school or water district, an abstract company, etc. If this information is not on the map itself, the list and map must have numbers to correlate the names with the properties.
2. The Landowner List must be submitted either on 4 sets of pre-printed mailing labels or on a Universal Serial Bus (USB) or flash drive. Indicate which format is used.
3. Indicate the source of the adjoining landowner information.

The following is an example of a Landowner Map and Landowner List.

| Map # | Landowner | Map # | Landowner |
| --- | --- | --- | --- |
| 1 | MR & MRS EDWARD SMITH  1405 KELLY LANE  HENDERSON TX 75653 | 5 | MR JOHN DOE  223 W 1ST STREET  ROBINSON TX 76706 |
| 2 | MR & MRS CLARK JOHNSON  123 FM 620  ROBINSON TX 76706 | 6 | MS. SUZIE BROWN  PO BOX 345  WACO TX 76710 |
| 3 | MRS SHELLY BROWN  569 FM 183  WACO TX 76710 | 7 | MS. MARGARET CHURCH  298 FM 620  ROBINSON TX 76706 |
| 4 | MR BOB JONES  485 FM 620  ROBINSON TX 76706 |  |  |



# Signature Pages

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification* with the general exemptions listed in the rule. The applicant should review *30 TAC Chapter 25* for specific requirements. The certification statement must be signed and submitted with every application.

A separate signature page must be provided for the site operator, each co-applicant, and the application site landowner or lease agreement holder (if different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with *30 TAC §305.44* relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

Complete Supplement #1 if the applicant or co-applicant is an individual. This page is not required for the landowner unless the landowner is an applicant/co-applicant.

# INSTRUCTIONS FOR THE TECHNICAL REPORT

# Section 1. Site Management and History

1. Describe the equipment used to land apply the septage and the method to evenly distribute the septage.
2. Describe how often septage will be applied to the site and during which times of the year. Example: applied twice per week year round, or applied once per month during March –September.
3. Identify if septage has been applied to this site in the past.
4. Describe the planned use of the site, crops grown, crop rotation, tillage practices, and the amount and application rate of previous septage applications.

# Section 2. Domestic Septage Information

Describe the sources of the domestic septage. See the definition of domestic septage earlier in this document or in *30 TAC § 312.8*.

# Section 3. Pathogen and Vector Attraction Reduction Requirements.

1. All septage must be treated with lime and pH adjustment to reduce pathogens and vector attraction prior to land application. Select yes to confirm that septage will be chemically treated according to the requirements of *30 TAC §312.82-83*. **Please note that the processing of domestic septage (a processing unit or facility used for treating the domestic septage) at a land application unit is not authorized under a land application registration. You must obtain a Municipal Solid Waste authorization to treat domestic septage if not done in transport vehicle.**
2. Please indicate which type of site restrictions are utilized if the land application unit is agricultural land, forest, or a reclamation site.

# Section 4. Well Data

1. Attach a USGS map that identifies the required information. This USGS map may be in addition to other USGS maps required by the application. Attempting to identify too many details on a single USGS map may make the map difficult to read. If the map is unreadable, review staff may request a revised map. Each well should be assigned a unique number.

To locate wells, you can search the groundwater database on the Texas Water Development Board website at <http://www.twdb.texas.gov/groundwater/data/gwdbrpt.asp>

1. For each well identified on the map, provide the requested use and condition of the well. The “Well #” in the table should correspond to the well number on the map.

Prior to land application of septage, wells may need corrective actions taken to protect the well. Use the table to identify the well condition and the associated corrective action required.

# Section 5. Soil Data

1. Use the USDA-NRCS Soil Survey descriptions to complete the table. The USDA-NRCS Web Soil Survey (WSS) tool is available online at: <http://websoilsurvey.nrcs.usda.gov/app/>. Locate the property using either the address or latitude/longitude. Use the Area of Interest (AOI) to draw the application area boundaries, then select Soil Map to display soil types. Each soil type is a hyperlink to the soil survey descriptions.
2. For soils less than two feet deep, provide rationale for using these soils.
3. Provide the name of the individual that completed the Soil Data Table.
4. Provide the source of the data.
5. Provide the date that the data was obtained.
6. List soils with restrictive characteristics. A list of restrictive soil characteristics is provided for reference.

# Section 6. Soil Sampling Testing Results

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

| **Parameter \*** | **0- 6 "** | **6 -24"** | **Frequency** |
| --- | --- | --- | --- |
| Nitrate Nitrogen (NO3-N, mg/kg) (1) | x | x | 1 per year |
| Ammonium Nitrogen (NH4-N, mg/kg) (1) | x | x | 1 per year |
| Total Kjeldahl Nitrogen (TKN, mg/kg) (2) | x | x | 1 per year |
| Phosphorus (plant available, mg/kg) (3) | x | x | 1 per year |
| Potassium (plant available, mg/kg) (3) | x | x | 1 per year |
| Sodium (plant available, mg/kg) (3) | x | x | 1 per year |
| Magnesium (plant available, mg/kg) (3) | x | x | 1 per year |
| Calcium (plant available, mg/kg) (3) | x | x | 1 per year |
| Electrical Conductivity (4) | x | x | 1 per year |
| Soil Water pH (S.U.) (5) | x | x | 1 per year |
| Total Arsenic (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Cadmium (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Chromium (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Copper (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Lead (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Mercury (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Molybdenum (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Nickel (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Selenium (mg/kg) (6) | x | N/A | 1 per 5 years |
| Total Zinc (mg/kg) (6) | x | N/A | 1 per 5 years |

\* All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

1: Determined in a 1 N KCl soil extract (<http://soiltesting.tamu.edu/webpages/swftlmethods1209.html>).

2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.

3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.

4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).

5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.

6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.

# Appendix A: Septage Application Rate

# Step 1. Cropping Plan and Nutrient Needs

List the warm and cool season crops and their respective nitrogen requirements in lbs/year. Calculate the total nitrogen requirement by adding the nitrogen requirements of the warm season crops and cool season crops. The nitrogen requirement can be obtained from a soil test analysis provided by the soil testing laboratory. You can also obtain the information from the S-Crop worksheet located at the following Texas A&M University website: <https://nutrientmanagement.tamu.edu/>

Calculate the nitrogen available in the soil using the equation provided for Line 2B. If more than one composite sample was taken at the site (i.e., the application area is greater than 80 acres), enter the highest nitrogen available calculated in Table 4 into Line 2B. Calculate the nitrogen amount still needed for the intended crops by subtracting the nitrogen available in the soil from the total nitrogen requirement.

Line B = 2\*NO3-N (ppm)(in the 0-6" soil depth) + 6\*NO3- N(ppm)(in the 6-24" soil depth)

Line C is the amount of nutrients that must be added to meet the yield goals. Line C = Line A minus Line B.

# Step 2. Calculate Annual Whole Application Rate

Use the equation provided to calculate your annual application rate.

If the application site is located in a Major Sole-Source Impairment Zone, attach a copy of the nutrient management plan that was prepared by a Certified Nutrient Management Specialist. Currently, the only Major Sole-Source Impairment Zone is located in the Bosque River Watershed, Segments 1226 and 1255. A list of Certified Nutrient Management Specialists is available at the following Texas A&M University website: <https://nutrientmanagement.tamu.edu/>

If the phosphorous level in the soil is greater than 200 parts per million, you must also submit a detailed Nutrient Utilization Plan.

# Appendix B: On-Site Storage

This appendix is only required if on-site storage will occur at the application site.

1. Describe operational plans for storage areas, including measures to odor control, vectors, and other nuisances.
2. Identify the location of the storage area on a USGS topographic map.
3. Attach the liner certification and storage tank certifications to the application.
4. Attach a certification that the berms will hold the required volume without discharging.
5. Give the method of stormwater runoff collection and disposal for the storage areas.
6. Describe the methods used to ensure storage doesn't exceed 90 days.