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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 28, 2022

Mr. Greg Roque, Senior Technical Services Specialist
Synagro of Texas-CDR, Inc.
501 Woodall Road
Decatur, Alabama 35601

Re: Synagro of Texas-CDR, Inc., Individual Permit No. WQ0004451000
(CN601307630; RN102994837)

Dear Mr. Roque:

Enclosed is a copy of the above referenced permit for your beneficial land use site. The permit contains several general and special conditions for the operation of the site. In addition, the operation activities of the site must be consistent with those represented in the application.

As required by the 30 Texas Administrative Code Chapter 312, you must submit copies of the results from soil sampling on an annual basis. These sample results should be filed with both the Texas Commission on Environmental Quality (TCEQ) in Austin and the appropriate TCEQ Regional Office and maintained in your records for five years. In addition, you must submit the Annual Sludge Report Summary Sheet by September 30th of each year. Please pay associated fees promptly when billed by the TCEQ each year during the term of this permit.

This permit will be in effect for five years from the date of approval or for the term stated on the permit. To renew this permit, an application for this action must be filed with the TCEQ at least 180 days prior to the expiration date.

If you have any questions, please contact Mr. Brian Sierant of the TCEQ's Water Quality Assessment Section at (512) 239-4671, or if by correspondence include MC-150 in the letterhead address below.

Sincerely,

Robert Sadlier, Deputy Director
Water Quality Division

RS/BS/af

cc: The Honorable Ty Prause, Colorado County Judge, 400 Spring Street, Room 107
Columbus, Texas 78934

PERMIT NO. WQ0004451000

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

This amendment supersedes and replaces Permit No. WQ0004451000 issued on December 21, 2015.

PERMIT TO LAND APPLY BIOSOLIDS

under provisions of Chapter 26 of the Texas Water Code,
Chapter 361 of the Texas Health and Safety Code,
and Chapter 312 of the Texas Administrative Code.

I. PERMITTEE

Synagro of Texas-CDR, Inc.
501 Woodall Road
Decatur, Alabama 35601

II. AUTHORIZATION

Beneficial Land Application of Class B Wastewater Treatment Plant (WWTP) Biosolids

III. GENERAL DESCRIPTION AND LOCATION OF SITE

Description: The permittee is authorized to land apply Class B WWTP biosolids at an annual rate not to exceed 12 dry tons per acre per year on Fields 1 through 10 on 292.57 acres located within approximately 434.98 acres at this site*. * See Special Provision A.

Location: The land application unit is located approximately 900 feet west of the intersection of Farm-to-Market Road 1093 and Farm-to-Market Road 2764, in Colorado County, Texas 77435 (see Attachment A).

SIC Code: 4952

Drainage Basin: The land application unit is located in the drainage basin of San Bernard River Above Tidal in Segment No. 1302 of the Brazos-Colorado River Basin. No discharge of pollutants into water in the state is authorized by this permit.

This permit and the authorization contained herein shall expire at midnight five years from the date of issuance listed below.

ISSUED DATE: January 21, 2022

For the Commission

IV. GENERAL REQUIREMENTS

A. The permittee shall handle and dispose of Class B biosolids in accordance with 30 Texas Administrative Code (TAC) Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present.

B. An application for renewing this permit shall be submitted by the permittee at least 180 days prior to the expiration date of this permit.

C. Class B WWTP Biosolids

1. In all cases, the generator or processor of biosolids shall provide necessary analytical information to the parties who receive the biosolids, including those receiving the biosolids for land application, to assure compliance with these regulations.

2. The permittee shall not accept biosolids that fails the Toxicity Characteristic Leaching Procedure (TCLP) test per the method specified in both 40 Code of Federal Regulations (CFR) Part 261 and 40 CFR Part 268, or another method which receives the prior approval of the Texas Commission on Environmental Quality (TCEQ) for the contaminants listed in Table 1 of 40 CFR Section 261.24.

3. Biosolids shall not be applied to the land if the concentration of any metal exceeds the ceiling concentration listed in Table 1 below. Additional information on the frequency of testing for metals is found in Section IX.

Table 1

Pollutant	Ceiling Concentration (milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

* Dry weight basis

4. When the total aggregate amount of any metal in Table 2 below in all biosolids applied at the site during the entire use of this site) reaches the cumulative level listed in Table 2, only biosolids with metal levels at or below those shown in Table 3 below can be applied at the site. To compute this number, the total amount of each metal applied must be summed on a continuing basis as biosolids are applied.

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Concentration milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

* Dry weight basis

5. Biosolids also cannot be applied in excess of the most restrictive of the following criteria:

   a. The maximum application rate (MAR) based on crop nitrogen needs (also referred to as the agronomic rate), which is calculated based on the total amount of nitrogen in the biosolids and in the soils at the application site and on the nitrogen requirements of the vegetation in the application area.

   b. The MAR for each metal pollutant in Table 1 above, which is calculated individually for each metal based on its concentration in the biosolids and in the soils in the application area.

6. All of the MARs above must be calculated using Appendix A of the "Application for Permit for Beneficial Land Use of Biosolids." These calculations must cover both biosolids for areas where both are applied. If biosolids or are received from multiple sources, the average concentration of each of the elements above must be determined using "Table 2 - Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration" from the application form.

7. Anytime the permittee plans to accept Class B biosolids from any source other than those listed in the application and approved for this permit, the permittee must notify and receive authorization from the Water Quality Division (MC 150) of the TCEQ prior to receiving the new source. The notification must include information to demonstrate that the biosolids from the proposed new source meets the requirements of this permit. The permittee must provide a certification from each source that the biosolids meets the requirements for a Process to Significantly Reduce Pathogens (PSRP) or an alternative. The permittee must provide documentation that the biosolids does not exceed the limits for polychlorinated biphenyls (PCBs), vector attraction, and the metal pollutants in Table 1 above. No biosolids from sources other than the ones listed in the application can be land applied prior to receiving written authorization from the TCEQ.

D. The permittee shall maintain a commercial liability insurance policy for the duration of the permit that:

1. is issued by an insurance company authorized to do business in this state that has a rating by the A.M. Best Company of A- or better;

2. designates the commission as an additional insured; and

3. is in an amount of not less than $3 million.

E. The permittee shall maintain an environmental impairment insurance policy for the duration of the permit that:

1. is issued by an insurance company authorized to do business in this state that has a rating by the A.M. Best Company of A- or better;

2. designates the commission as an additional insured; and

3. is in an amount of not less than $3 million.

V. OPERATIONAL REQUIREMENTS

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

VI. REQUIRED MANAGEMENT PRACTICES

A. Biosolids 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.

B. Biosolids must not be applied to land that is flooded, frozen, or snow-covered to prevent the entry of bulk biosolids into wetlands or other water in the state.

C. Biosolids shall be land applied in a manner which complies with 30 TAC Section 312.44, Management Requirements, including maintaining the following buffer zones for each application area.

1.	Established school, institution, business or residence	750 feet
2.	Public water supply well, intake, spring, or similar source, public water treatment plant, or public water supply elevated or ground storage tank	500 feet
3.	Solution channel, sinkhole, or other conduit to groundwater	200 feet
4.	Water in the state - when biosolids are not incorporated	200 feet
5.	Water in the state - when biosolids are incorporated within 48 hours of application and a vegetated cover is established	33 feet
6.	Private water supply well	150 feet
7.	Public right-of-way	50 feet
8.	Property boundary	50 feet
9.	Irrigation conveyance canal	10 feet

D. Biosolids 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 biosolids are applied.

E. The seasonally high water table, groundwater table, or depth to water-saturated soils must be at least three (3) feet below the treatment zone for soils with moderate to slow permeability (less than two inches per hour) or four (4) feet below the treatment zone for soils with rapid to moderately rapid permeability (between two and twenty inches per hour). Biosolids cannot be applied to soils with permeation rates greater than twenty inches per hour.

F. Biosolids must be applied by a method and under conditions that prevent runoff beyond the active application area and protect the quality of the surface water and the soils in the unsaturated zone. In addition, the following conditions must be met:

1. Biosolids must be applied uniformly over the surface of the land;

2. Biosolids must not be applied to areas where permeable surface soils are less than 2 feet thick;

3. Biosolids must not be applied during rainstorms or during periods in which surface soils are water-saturated;

4. Biosolids must not be applied to any areas having a slope in excess of 8%;

5. where runoff from the active application area is evident, the operator must cease further biosolids application until the condition is corrected;

6. the site operator must prevent public health nuisances. Biosolids debris must be prevented from blowing or running off site. To prevent nuisance conditions from occurring, the site operator shall minimize dust migration from the land application unit and access roadways and minimize offensive odor through incorporation of biosolids into the soil or by taking some other type of corrective action;

7. Biosolids application practices must not allow uncontrolled public access, so as to protect the public from potential health and safety hazards at the site; and

8. Biosolids can be applied only to the land application area shown on Attachment B. The buffer zones as listed on that map as well as the buffer zone distances listed in section VI.C. must not have any Biosolids applied on them.

9. Biosolids may not be applied on land within a designated floodway.

10. The permittee shall develop and implement best management practices (BMPs) to minimize off-site tracking of biosolids and sediment during the transport of biosolids 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 operator and made by readily available for review by a TCEQ representative.

G. The permittee shall post a sign that is visible from a road or sidewalk that is adjacent to the premises where the land application unit is located stating that a beneficial land use application unit is located on the premises.

The sign shall include the operator name, telephone number, the classification of and the TCEQ authorization number.

H. Biosolids must be handled by a method that is consistent with the permittee's Adverse Weather and Alternative Plan. This plan shall detail procedures to address times when the biosolids cannot be applied to the land application unit due to adverse weather or other conditions such as wind, precipitation, field preparation delays, and access road limitations.

VII. PATHOGEN CONTROL

A. All sewage sludge that is applied to agricultural land, a forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sewage sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

1. For biosolids to be classified as Class A with respect to pathogens, the density of fecal coliform must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

   Alternative 1 - The temperature of the biosolids must be maintained at a specific value for a specific period of time. See 30 TAC § 312.82(a)(3)(A) for specific information.

   Alternative 5 (PFRP) - Biosolids must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

   Alternative 6 (PFRP Equivalent) – Biosolids must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

2. For biosolids to be classified as Class AB with respect to pathogens, the density of fecal coliform must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

   Alternative 2 - The pH of the biosolids must be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

   The temperature of the biosolids must be above 52° Celsius for 12 hours or longer during the period that the pH of the biosolids is above 12 std. units.

   At the end of the 72-hour period during which the pH of the biosolids is above 12 std. units, the biosolids shall be air dried to achieve a percent solids in the biosolids greater than 50%.

   Alternative 3 - The biosolids must be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC §312.82(a)(2)(B)(i-iii) for specific information. Biosolids shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC §312.82(a)(2)(B)(iv-vi) for specific information.

Alternative 4 - The density of enteric viruses in the biosolids must be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the biosolids are used or disposed. The density of viable helminth ova in the biosolids must be less than one per four grams of total solids (dry weight basis. See 30 TAC §312.82(a)(2)(C) for specific information.

3. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment or create nuisance odor conditions.

4. Three alternatives are available to demonstrate compliance for Class B biosolids.

Alternative 1

i. A minimum of seven random samples of the biosolids must be collected within 48 hours of the time the biosolids are used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected must be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 colony forming units per gram of total solids (dry weight basis).

Alternative 2 Biosolids that are used or disposed of must be treated in one of the PSRP described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the biosolids.

i. Prior to use or disposal, all the biosolids must have been generated from a single location, except as provided in subparagraph v. below;

ii. An independent Texas licensed professional engineer must provide a certification to the generator of biosolids that the wastewater treatment facility generating the biosolids is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification must include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any biosolids generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the biosolids underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established EPA final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met must be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the biosolids are generated from a mixture of sources, resulting from a person who prepares biosolids from more than one wastewater treatment facility, the resulting derived product must meet one of the PSRP, and must meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 Biosolids must be treated in an equivalent process that has been approved by the EPA so long as all of the following requirements are met by the generator of the sewage sludge:

i. prior to use or disposal, all biosolids must have been generated from a single location, except as provided in subparagraph v. below;

ii. prior to any off-site transportation or on-site use or disposal of any biosolids generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the biosolids underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements must be in accordance with established EPA final guidance;

iii. all certification records and operational records describing how the requirements of this paragraph were met must be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. the executive director will accept from the EPA a finding of equivalency to the defined PSRP; and

v. if the biosolids are generated from a mixture of sources resulting from a person who prepares biosolids from more than one wastewater treatment facility, the resulting derived product must meet one of the PSRP and must meet the certification, operation, and record keeping requirements of this paragraph.

B. In addition, the following site restrictions must be met when Class B biosolids are land applied:

1. food crops with harvested parts that touch the biosolids /soil mixture and are totally above the land surface must not be harvested for 14 months after the application of biosolids;

2. food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remains on the land surface for 4 months or longer prior to incorporation into the soil;

3. food crops with harvested parts below the surface of the land shall not be harvested for 38 months after the application of biosolids when the biosolids remains on the land surface for less than 4 months prior to incorporation into the soil;

4. food crops, feed crops, and fiber crops shall not be harvested for 30 days after the application of biosolids;

5. domestic livestock shall not be allowed to graze on the land for 30 days after the application of biosolids;

6. turf grown on land where biosolids are applied shall not be harvested for 1 year after the application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn;

7. public access to land with a high potential for public exposure shall be restricted for 1 year after the application of biosolids;

8. public access to land with a low potential for public exposure shall be restricted for 30 days after the application of biosolids; and

9. land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC §312.44.

VIII. VECTOR ATTRACTION REDUCTION REQUIREMENTS

A. All bulk biosolids that are applied to agricultural land, a forest, a public contact site, or a reclamation site shall be treated in accordance with one of the following alternatives for vector attraction reduction.

Alternative 1 The mass of volatile solids in the biosolids shall be reduced by a minimum of 38 percent [30 TAC §312.83(b)(1)].

Alternative 2 If Alternative 1 cannot be met for an anaerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 percent to demonstrate compliance [30 TAC §312.83(b)(2)].

Alternative 3 If Alternative 1 cannot be met for an aerobically digested biosolids, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids with a percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 percent to demonstrate compliance [30 TAC §312.83(b)(3)].

Alternative 4 The specific oxygen uptake rate (SOUR) for biosolids treated in an aerobic process must be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius [30 TAC §312.83(b)(4)]. This test may only be run on sludge with a total percent solids of two percent or less.

Alternative 5 Biosolids shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the biosolids shall be higher than 40 degrees Celsius and the average temperature of the biosolids shall be higher than 45 degrees Celsius [30 TAC §312.83(b)(5)].

Alternative 6 The pH of biosolids shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours [30 TAC

§312.83(b)(6)]. This must be done at the time the biosolids are prepared for sale or given away in a bag or other container.

Alternative 7 The percent solids of biosolids that do not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials [30 TAC §312.83(b)(7)]. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 The percent solids of biosolids that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials [30 TAC §312.83(b)(8)]. This shall be done at the time the biosolids are used. Unstabilized solids are defined as organic materials in biosolids that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 Biosolids shall be injected below the surface of the land. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected. When biosolids that are injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process [30 TAC §312.83(b)(9)].

Alternative 10 Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process [30 TAC §312.83(b)(10)].

IX. MONITORING REQUIREMENTS

The biosolids must be monitored according to 30 TAC §312.46(a)(1) for the ten metals in Table 1 of Section IV.C.3, pathogen reduction, and vector attraction reduction.

A. If the concentration of nitrogen or any of the metals in Table 1 in Section IV.C.3 exceeds the concentration used to calculate any of the MARs in Section IV.C.5 and 6, the MAR for that element must be recalculated. If the biosolids come from multiple sources, the permittee must use Table 2 in Section IV.C.4 to calculate a volume weighted average of all biosolids that will be applied during the current monitoring period.

B. After the biosolids have been monitored according to 30 TAC §312.46(a)(1) for a period of two years, an application may be submitted to amend this permit to reduce the frequency of monitoring.

C. The frequency of monitoring will be increased if recalculation of the agronomic rate increases the amount of biosolids that can be applied to a higher threshold, as shown in 30 TAC §312.46(a)(1). The frequency of monitoring may also be increased if the TCEQ determines that the level of pollutants or pathogens in the biosolids warrants such action.

D. If WWTP biosolids are received at this site for land application, the permittee must ensure that the test data for TCLP and PCBs is provided from the generators.

E. All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency pursuant to 30 TAC §312.46(a)(1).

F. Representative samples of biosolids shall be collected and analyzed in accordance with the methods referenced in 30 TAC §312.7.

G. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

X. RECORD KEEPING REQUIREMENTS

The permittee shall fulfill record keeping requirements per 30 TAC §312.47. The documents shall be retained at the site and shall be readily available for review by a TCEQ representative.

A. Records of the following general information must be kept for land application permits:

1. a certification statement that all applicable requirements (specifically listed) have been met and the permittee understands that there are significant penalties for false certification, including fines and imprisonment. See 30 TAC §312.47(a)(4)(A)(ii) or (a)(5)(A)(ii), whichever is applicable;

2. the location, by street address, and specific latitude and longitude, of each site on which biosolids is applied;

3. the number of acres;

4. the dates, times, and quantities applied to each site;

5. the cumulative amount of each pollutant in pounds per acre listed in Table 2 of Section IV.C.4 applied to each site;

6. the total amount applied to each site in dry tons;

7. the dates of harvesting activity;

8. the amount harvested, excluding grazing and

9. a description of how the management practices listed in Section IV.C., and 30 TAC §312.44 are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(viii).

B. For biosolids with metal concentrations at or below levels in Table 3 of Section IV.C.4 that also meets the Class A or Class AB pathogen requirements in 30 TAC §312.82(a) and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of a description of how the vector attraction reduction requirements are met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).

C. For biosolids with metal concentrations at or below levels in Table 3 of Section IV.C.4 that also meets the Class B pathogen requirements in 30 TAC §312.82(b), and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of:

1. a description of how site restrictions for Class B biosolids in 30 TAC §312.82(b)(3) are being

met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(x); and

2. a description of how the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).

D. For biosolids with metal concentrations at or below levels in Table 1 of Section IV.C.3 that also meets the Class B pathogen requirements in 30 TAC §312.82(b), and the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10), the permittee shall keep a record of:

1. a description of how the requirements to obtain information from the biosolids generators in 30 TAC §312.42(e) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(vi);

2. a description of how the site restrictions for Class B biosolids in 30 TAC §312.82(b)(3) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(x); and

3. a description of how the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) are being met. If these requirements are being met, the permittee shall prepare and keep a certification statement per 30 TAC §312.47(a)(5)(B)(xii).

XI. REPORTING REQUIREMENTS

A. The permittee shall submit a separate annual report by September 30th of each year per 30 TAC §312.48 for each site. The annual report must include all the information required under 30 TAC §312.48 (including the items listed below) for a period covering September 1st of the previous year through August 31st of the current year. Additionally, the "Annual Biosolids Land Application Summary Report Form" (Attachment C) should be filled out and submitted with the annual report. The permittee shall submit the report to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12). Record retention requirements must be followed in accordance with 30 TAC §312.47. The following information must be included in the report:

1. Annual Land Application Summary Report Form (a blank form is provided as Attachment C) with the following information:

   i. permit number;

   ii. the site location (address or latitude and longitude);

   iii. operator address, contact person's name, telephone number, and fax number;

   iv. amount of biosolids applied (dry metric tons) at each land application unit;

   v. number of acres on which biosolids are land applied;

   vi. vegetation grown and number of cuttings; and

   vii. other items listed in the summary sheet.

2. If the concentration for any metal listed in Table 3 of Section IV.C.4 is exceeded, the report must include the following information:

   i. date and time of each application;

   ii. all certification statements required under 30 TAC §312.47(a)(5)(B);

   iii. a description of how the information from the generator was obtained, per 30 TAC §312.42(e);

   iv. a description of how each of the management practices in 30 TAC §312.44 were met for this site;

   v. a description of how the site restrictions in 30 TAC §312.82(b)(3) were met for this site;

   vi. if the vector attraction reduction requirements in 30 TAC §312.83(b)(9) or (10) were met, a description of how this was done;

   vii. soil and biosolids test reports, as required in Section XII of this permit; and

   viii. calculations of the current agronomic rate and the life of the site based on metal loadings (Appendix A of the application, or a similar form).

3. If none of the concentrations for the metals exceed the values listed in Table 3 in Section IV.C.4:

   i. information per 30 TAC §312.47(a)(3)(B) for Class A biosolids; and

   ii. information per 30 TAC §312.47(a)(4)(B) for Class B biosolids.

4. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2 in Section IV.C.4, the permittee shall provide the following additional information:

   i. date and time of each application;

   ii. the information in 30 TAC §312.47(a)(5)(A) must be obtained from the generator and included in the report; and

   iii. the cumulative amount in pounds per acre of each pollutant listed in Table 2 in Section IV.C.4 applied to each application field of this site through bulk biosolids.

5. The permittee shall submit evidence it is complying with the nutrient management plan developed 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.

B. The permittee shall submit a quarterly report by the 15th day of the month following each quarter during the reporting period (ie. quarterly reports will be due December 15th, March 15th, June 15th, and September 15th). Additionally, the "Quarterly Land Application Report Form" (Attachment E) should be filled out and submitted with the quarterly report. The permittee shall submit the report to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12). Record retention requirements must be followed in accordance with 30 TAC §312.47. The Quarterly Land Application Report Form

must include the following information:

1. the source, quality, and quantity applied to the land application unit;
2. the location of the land application unit, either in terms of longitude and latitude or by physical address, including the county;
3. the dates of delivery of Class B biosolids;
4. the dates of application of Class B biosolids;
5. the cumulative amount of metals applied to the land application unit through the application of Class B biosolids;
6. crops grown at the land application unit site; and
7. the suggested agronomic application rate.

XII. SOIL SAMPLING AND ANALYSIS

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

The permittee 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 permittee 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 biosolids within the permanent land application fields with the "Annual Land Application Report Form" (Attachment D) to the Land Application Team of the Water Quality Assessment Section (MC 150) and the TCEQ Regional Office (MC Region 12) no later than September 30th of each sampling year. If biosolids are not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that biosolids have not been applied on the approved land application unit(s) during that year.

The permittee must monitor the soil-biosolids mixture for the site for the parameters listed below using the soil sampling requirements described in 30 TAC §312.11(d)(2) and (3). 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[7]	NOTE	FREQUENCY	SAMPLE DEPTH	
				0" - 6"	6" - 24"
1.	Nitrate Nitrogen (NO_3-N, mg/kg)	1	1 per year	X	X
2.	Ammonium Nitrogen (NH_4-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.

XIII. STANDARD PROVISIONS

A. This permit is granted in accordance with the Texas Water Code, Texas Health and Safety Code, the rules and other Orders of the Commission and other applicable laws of the State of Texas.

B. Unless specified otherwise, any noncompliance which may endanger human health or safety, or the environment shall be reported to the TCEQ. A report of such information must be provided orally or by facsimile transmission (FAX) to the TCEQ Regional Office (MC Region 12) within 24 hours of becoming aware of the noncompliance. A written submission of such information must also be provided to the TCEQ Regional Office (MC Region 12) and to the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission must contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the anticipated amount of time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

C. Any noncompliance other than that specified in Standard Provision B, or any required information not submitted or submitted incorrectly, must be reported to the TCEQ Enforcement Division (MC 224) as promptly as possible.

D. Acceptance of this permit constitutes an acknowledgment and agreement that the permittee shall comply with all the terms, provisions, conditions, limitations and restrictions embodied in this permit and with the rules and other Orders of the Commission and the laws of the State of Texas. Agreement is a condition precedent to the granting of this permit.

E. Prior to any transfer of this permit, Commission approval must be obtained. The Commission must be notified, in writing, of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

F. The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit will control.

G. The permittee is subject to the provisions of 30 TAC §305.125, Consolidated Permits-Standard Permit Conditions.

H. The permittee shall remit to the Commission annual fees per 30 TAC §312.9. Failure to pay the fees on time may result in revocation of this permit.

I. The permittee does not have a vested right in this permit.

J. The permittee may not accept Class B biosolids unless it has been transported to the land application unit in a covered container with the covering firmly secured at the front and back.

K. This permit does not authorize the land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wasted listed in this provision combined with biosolids unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

L. This permit does not authorize the processing of biosolids or 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.

XIV. SPECIAL PROVISIONS

A. For the first year of this permit, the maximum application rate shall not exceed 12 dry tons per acre for Fields 1 through 10. On an annual basis, the application rate shall be calculated and adjusted based on current soil monitoring results. This application rate that is submitted in each annual report shall not exceed the overall maximum application rate of 12 dry tons per acre per year for Fields 1 through 10.

B. During times of land application of biosolids, all buffer zones (including surface water buffers) must be distinguished from each other by the use of flags, posting or fencing to ensure that both buffer areas and land application areas are separated.

Application areas (Fields 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10) must be distinguished from each other by the use of flags, posting or fencing to ensure that each field is separated.

C. The permittee should consider nutrient management practices appropriate for land application of wastes to assess the potential risk for nitrogen and phosphorus to contribute to water quality impairment. Information on a certification program for Nutrient Management Specialist is available on the web at http://nmp.tamu.edu/.

Nutrient management should be practiced within the context of the Natural Resource Conservation Service (NRCS) Code 590 Practice Standard which addresses the kind, source, placement, form, amount, timing and application method of nutrients and soil amendments. This is available on the web at:
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1192371.pdf

The 590 Standard should be conducted using the Phosphorus Index, a simple screening tool to rank vulnerability of fields as sources of phosphorus loss to surface runoff. Information on Phosphorus index is available on the web at:
http://efotg.sc.egov.usda.gov/references/public/TX/TXTechNote15_December_2012_Texas_P Index.pdf.

Annual analysis of plant-available phosphorus in soil must be conducted using the Mehlich III extraction.

D. All staging areas shall be located outside the buffer zones required by 30 TAC §312.44(c).

E. The permittee shall use cultural practices to promote and maintain the health and propagation of the Coastal Bermudagrass, Oat and Ryegrass and avoid plant lodging. The permittee shall manage the established cover by grazing and cutting and removing the grass to ensure the health and long-term permanency of the approved vegetative cover.

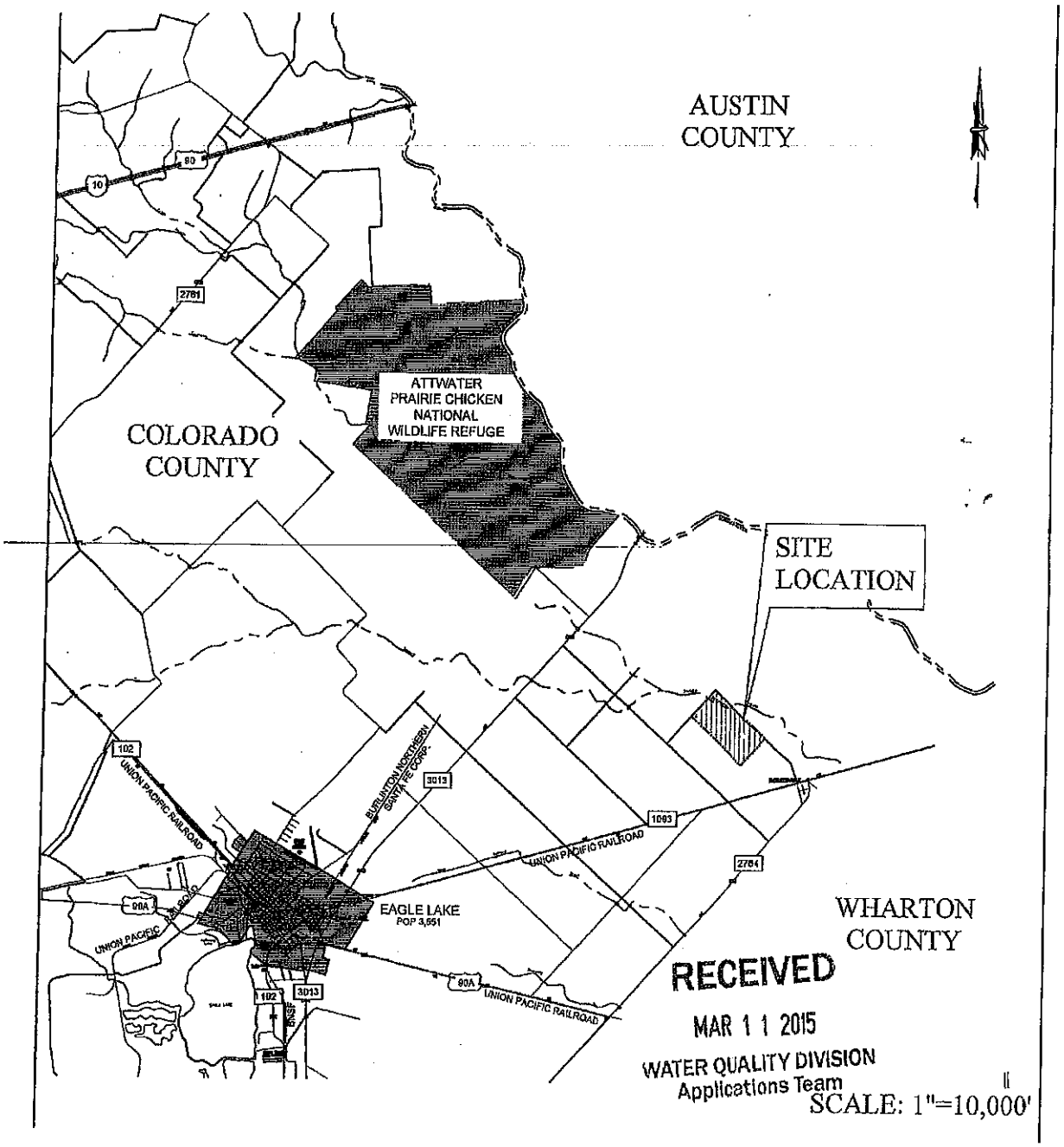
F. When biosolids applications are anticipated for periods other than June through August on Nada-Cieno complex soils, the permittee shall install at least two water table observation wells spaced a minimum of 50 feet apart at the lowest elevation of each affected application field (See Attachment C). The wells shall be screened to measure water tables between 0.5 and 4.5 feet below the soil surface. Land application of biosolids 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. For soils with a permeability greater than 2 inches per hour and less than 20 inches per hour, the land application 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 the

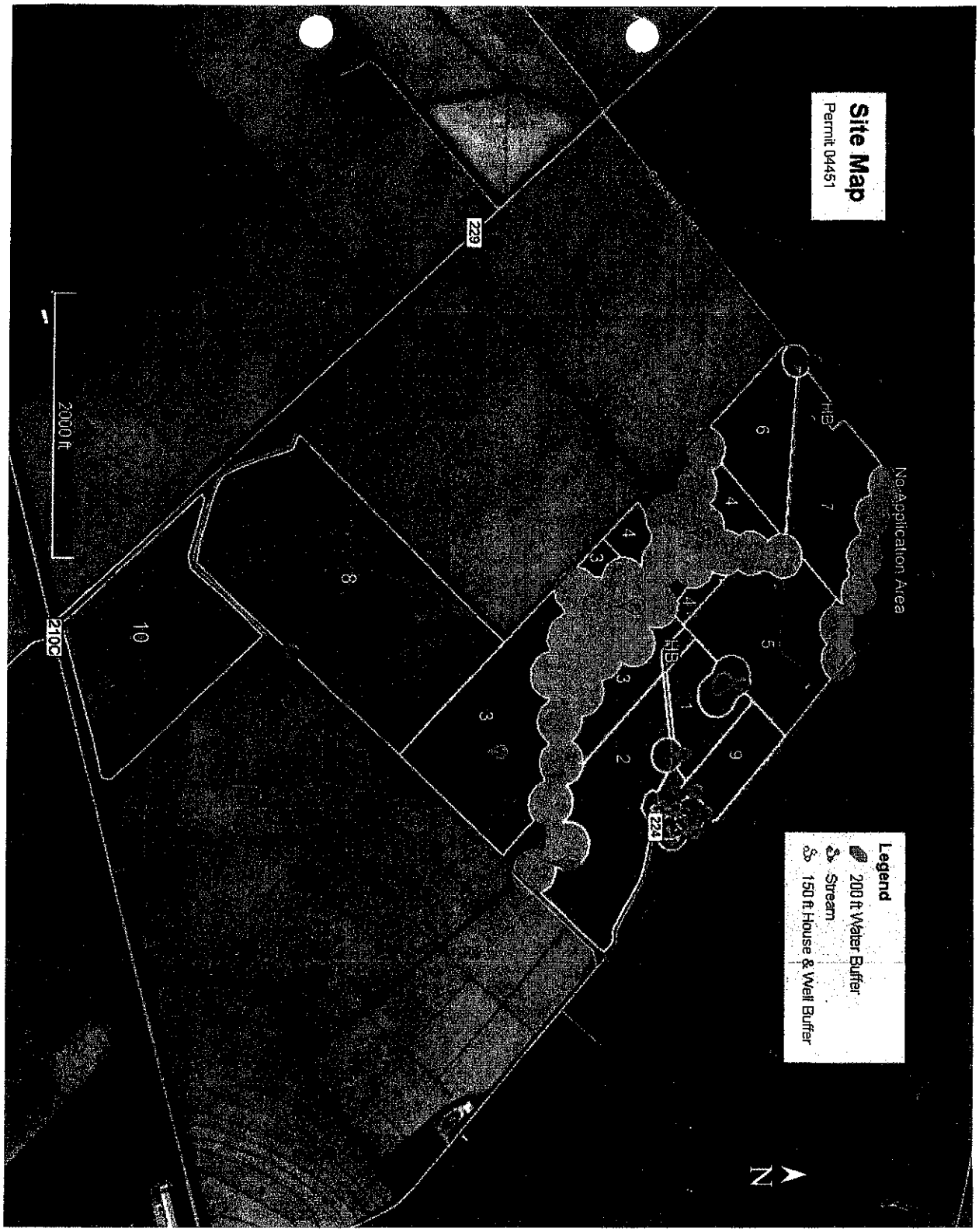
presence or absence of the perched or apparent water table. Records of monitoring data shall be maintained per 30 TAC §312.47. In the absence of groundwater monitoring, land application is prohibited during months when the most recently published soil survey data indicates that a perched or apparent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

H. For soils with a permeability less than 2 inches per hour, the land application 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 the 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 when the most recently published soil survey data indicates that a perched or apparent water table may be present within 3 feet of the treatment zone.

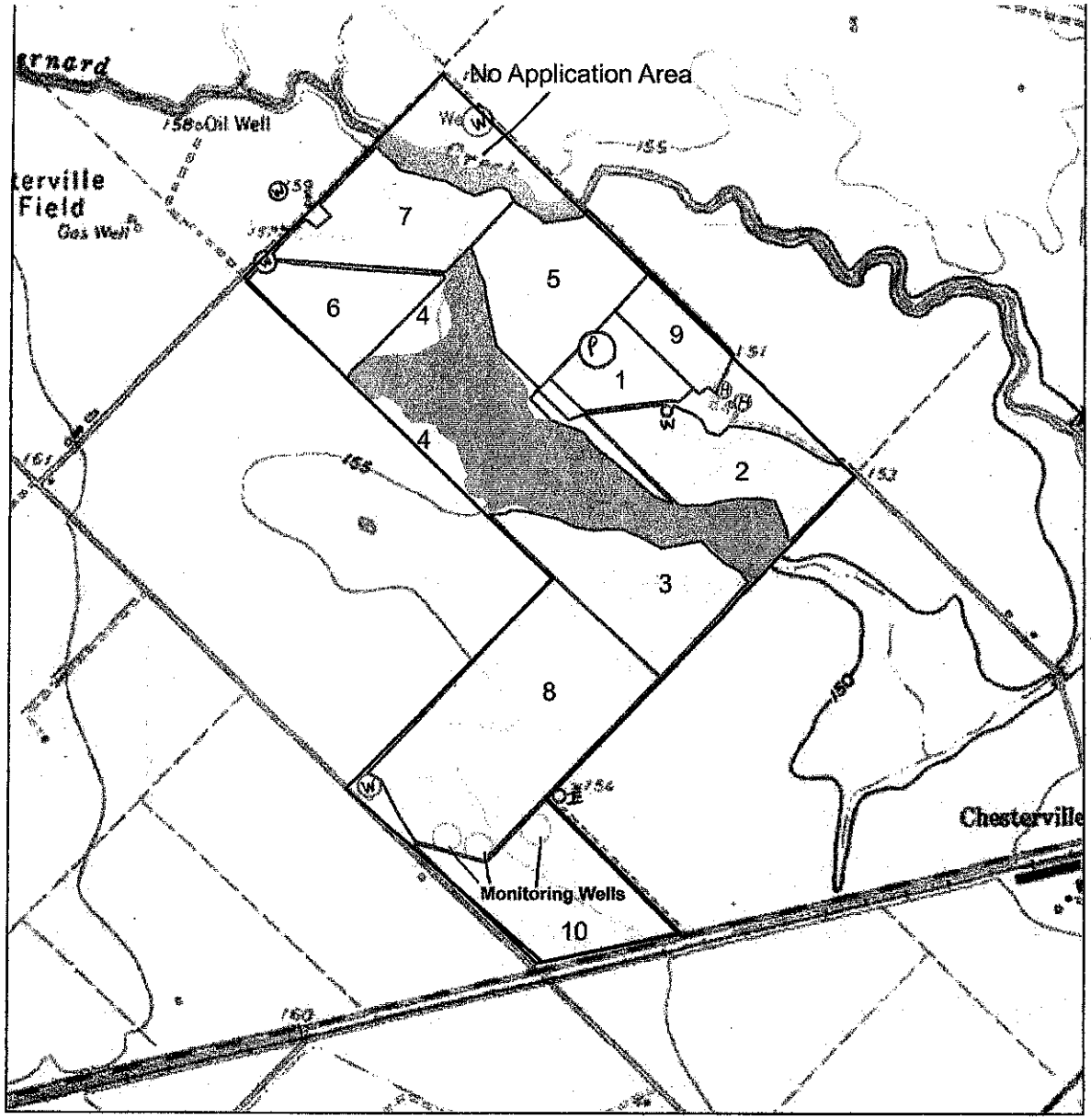
Attachment A



Attachment B



Attachment C



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Attachment D

Annual Land Application Summary Report Form

Note 1: If your site has more than one land application field, please submit a separate form for each field.

Note 2: Please note, in addition to the summary form, you need to submit all information as required by 30 TAC 312.48.

Note 3: If you operate other registered/permitted land application units, a form should be submitted for each site.

Note 4: Also send one complete copy of your report and this form to the TCEQ regional office in your area.

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:			

Field No. (if any): _____ (Please submit a separate form for each field)

1. Biosolids:
   a. Land Applied: _____ dry tons/year
   b. Disposed via Monofill: _____ dry tons/year
   c. Disposed via MSW Landfill: _____ dry tons/year
2. Treated Domestic Septage - Land Applied: _____ gallons/year
   a. Method used to treat Domestic Septage: _____
3. Water Treatment Plant Residuals:
   a. Land Applied: _____ dry tons/year
   b. Dedicated Land Disposal: _____ dry tons/year
   c. Disposed via Monofill: _____ dry tons/year
4. Class A or AB Biosolids land applied: dry tons/year
5. Acreage used for application/disposal at this site: _____ acres
6. Site vegetation (such as grass type etc.) and number of cuttings: _____

Biosolids only – Please provide information regarding the following 3 items:

1. Does any of the biosolids you have generated or received exceed the concentration limits for the metals listed in Table 3 of 30 TAC §312.43 (b)? Yes ☐ No ☐
2. Has your field/site reached or exceeded 90% of the cumulative metal loading rates for any metals as listed in Table 2 of 30 TAC §312.43 (b)? Yes ☐ No ☐
3. Have been applied to the field/site after 90% of cumulative metal loading rates for any of the metals per Table 2 of 30 TAC §312.43 (b) been reached? 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

Attachment E

Quarterly Land Application Summary Report Form

Note 1: If your site has more than one land application field, please submit a separate form for each field.
Note 2: Please place this sheet at the top of your Quarterly Report.
Note 3: If you have more than one permitted site, then fill-out this form for each one of those sites.
Note 4: Please send a copy of this sheet and all attachments to the 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:

Field No. (if any): _____ (Submit separate form for each field)

1. Class B Biosolids Land Applied: _____ dry tons /quarter
2. Treated Domestic Septage Land Applied: _____ gallons / quarter
3. Method used to treat Domestic Septage: _____
4. Water Treatment Plant Residuals Land Applied: _____ dry tons /quarter
5. Class A or AB Biosolids land applied: _____ dry tons /quarter
   a. Acreage used for Application/disposal at this site _____
   b. Site Vegetation (such as grass type etc.) and # of cuttings _____
   c. Does any of the biosolids you have generated or received exceed concentration limits for any of the metals listed in Table 3 of 30 TAC §312.43 (b)? Yes ☐ No ☐
   d. Site location: Latitude: _____ Longitude: _____
   e. Site physical address: _____

Please attach the information regarding the following items (Biosolids only):

- Please note the following information shall be provided in computer generated report format:
- Please place check mark before each item below to indicate you have attached that item with this report.

☐ 1. Metal concentration, pathogen analysis data and vector attraction certifications of biosolids for each source.
☐ 2. Provide a list containing the name and permit number of each source of biosolids.
☐ 3. Date of delivery of each load of biosolids land applied.
☐ 4. Date of land application of each load of biosolids.
☐ 5. The cumulative metal loading rates for any metals as listed in Table 2 of 30 TAC §312.43 (b)?
☐ 6. The suggested agronomic rate for the Class B biosolids.

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