

DOCKET NO. 2009-0531-IWD
General Permit No. TXG920000

RE-ISSUANCE OF GENERAL PERMIT	§	BEFORE THE TEXAS
TXG920000 TO AUTHORIZE TPDES AND	§	COMMISSION ON
STATE ONLY CONCENTRATED	§	ENVIRONMENTAL QUALITY
ANIMAL FEEDING OPERATIONS	§	

COMMISSION RESOLUTION FOR RENEWAL OF THE CAFO GENERAL PERMIT

WHEREAS, under Texas Water Code (TWC) Section (§) 26.121, no person may discharge waste or pollutants into or adjacent to any water in the state except as authorized by a rule, permit, or order issued by the Texas Commission on Environmental Quality (TCEQ or Commission);

WHEREAS, under TWC §26.027, the TCEQ has the authority to issue permits and amendments to permits for the discharge of waste or pollutants into or adjacent to waters in the state;

WHEREAS, under TWC §26.040, the TCEQ has the authority to issue a general permit to authorize the discharge of waste into or adjacent to waters in the state;

WHEREAS, the general permit (TXG920000) that authorizes concentrated animal feeding operations located in the state of Texas only according to certain limitations, monitoring requirements, and other conditions was drafted and proposed by the Executive Director and is attached as Exhibit A;

WHEREAS, the TCEQ received public comment on the proposed renewal and re-issuance the general permit;

WHEREAS, the Executive Director made changes to the general permit based on comments received;

WHEREAS, the Executive Director prepared, made available to the public, and filed with the Chief Clerk a written Response to Public Comments on the proposed changes to the general permit in accordance with the requirements of 30 Texas Administrative Code (30 TAC) §205.3(e) and is here attached as Exhibit B;

WHEREAS, the Commission has reviewed in accordance with Texas Natural Resources Code §33.205 and 30 TAC §205.5(f) the changes to the general permit for consistency with the Texas Coastal Management Program (CMP) and found that the General Permit is consistent with applicable CMP goals and policies and that the general permit will not adversely affect any applicable coastal natural resource areas as identified in the CMP;

WHEREAS, the Commission has determined in accordance with TWC §§26.040(a)(1)-(4) that the general permit would authorize Concentrated Animal Feeding Operations (CAFOs) who engage in the same or substantially similar types of operations, discharge the same types of waste,

are subject to the same requirements regarding effluent limitations or operating conditions, and are subject to the same or similar monitoring requirements;

WHEREAS, the Commission finds in accordance with TWC §26.040(a)(5) that the general permit would apply to dischargers who are more appropriately regulated under a general permit than under individual permits and that:

(A) The general permit has been drafted to assure that it can be readily enforced and that the Commission can adequately monitor compliance with the terms of the general permit; and

(B) The category of discharges covered by the general permit will not include a discharge of pollutants that will cause significant adverse effects to water quality; and

THEREFORE, after consideration of all public comment and the responses to such comment, the Commission, by this resolution, hereby re-issues the CAFO general permit, attached as Exhibit A, as recommended by the Executive Director and as approved by the Commission during its July 8, 2009 public meeting. The Commission, by this resolution, also hereby issues the Executive Director's Response to Comments as approved by the Commission during its July 8, 2009 public meeting as the Commission's Response to Public Comment, attached as Exhibit B.

Furthermore, the Commission directs staff to make any non-substantive changes to the general permit and the Commission's Response to Public Comment to satisfy Texas Register format requirements and requests that the amended general permit and Commission's Response to Public Comment be made available to the public in accordance with the requirements of TWC §26.040(d) and 30 TAC §205.3(e).

It is so **RESOLVED**.

Date of Adoption:

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Buddy Garcia, Chairman

Revised

EXHIBIT A

General Permit No. TXG920000



GENERAL PERMIT NO. TXG920000

This is a renewal and amendment of
general permit no. TXG920000
issued on July 20, 2004.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
Austin, TX 78711-3087

GENERAL PERMIT TO DISCHARGE WASTES
under provisions of
Chapter 26 of the Texas Water Code
and 30 Texas Administrative Code Chapter 205

Concentrated animal feeding operations (CAFOs) located in the state of Texas may discharge into or adjacent to surface water in the state only according to limitations, monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. This general permit meets the Clean Water Act and the Texas Water Code requirements for the protection of water quality. This general permit is applicable to Texas Pollutant Discharge Elimination System (TPDES) CAFOs and State-only CAFOs. The issuance of this general permit does not grant to the permittee the right to use private or public property for the conveyance of manure, sludge, or wastewater. This includes property belonging to but not limited to any individual, partnership, corporation, or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws and regulations. It is the responsibility of the permittee to acquire property rights as may be necessary for the conveyance of manure, sludge, or wastewater.

This general permit and the authorization contained herein shall expire at midnight on July 20, 2014.

EFFECTIVE: July 20, 2009

ISSUED:

For the Commission

TPDES GENERAL PERMIT NUMBER TXG920000
 RELATING TO THE DISCHARGE OF MANURE, SLUDGE AND WASTEWATER
 FROM CAFO FACILITIES

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Part I. Definitions

All definitions in Chapter 26 of the Texas Water Code and 30 Texas Administrative Code (TAC) Chapter 205, 305 and 321 Subchapter B shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

Agronomic rates - The land application of animal manure, sludge, or wastewater at rates of application in accordance with a plan for nutrient management which will enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth based upon a realistic yield goal.

Air contaminant - Particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor or any combination thereof produced by processes other than natural. Water vapor is not an air contaminant.

Animal feeding operation (AFO) - A lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season. Two or more animal feeding operations under common ownership are a single animal feeding operation if they adjoin each other, or if they use a common area or system for the beneficial use of manure, sludge, or wastewater. A land management unit is not part of an AFO.

Annual(ly) - Once per calendar year with required events not more than 18 months apart, unless approved in writing by the Executive Director on a case by case basis.

Aquifer - A saturated permeable geologic unit that can transmit, store, and yield to a well, the quality and quantities of groundwater sufficient to provide for a beneficial use. An aquifer can be composed of unconsolidated sands and gravels, permeable sedimentary rocks such as sandstones and limestones, and/or heavily fractured volcanic and crystalline rocks. Groundwater within an aquifer can be confined, unconfined, or perched.

Beneficial use - Application of manure, sludge, or wastewater to land in a manner which does not exceed the agronomic need or rate for a harvested or cover crop. Application of manure, sludge, or wastewater on the land at a rate below or equal to the optimal agronomic rate is considered a beneficial use.

Best management practices (BMPs) - The schedules of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of waters in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, land application, or drainage from raw material storage.

Catastrophic conditions - conditions which cause structural or mechanical damage to the AFO from natural events including high winds, tornados, hurricanes, or other natural disasters, other than rainfall events.

Certified Nutrient Management Specialist (CNMS) - An organization in Texas or an individual who is currently certified as a nutrient management specialist through a United States Department of Agriculture-Natural Resources Conservation Service recognized certification program.

Chronic or catastrophic rainfall event - A series of rainfall events that do not provide opportunity for dewatering a retention control structure and that are equivalent to or greater than the design rainfall event or any single rainfall event that is equivalent to or greater than the design rainfall event.

Concentrated animal feeding operation (CAFO) - A lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or post-harvest residues in the normal growing season and are defined as follows:

- (a) Large CAFO - any animal feeding operation which stables and confines and feeds or maintains for a total of 45 days or more in any 12-month period equal to or more than the numbers of animals specified in any of the following categories:
 - (1) 1,000 cattle other than mature dairy cattle or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;
 - (2) 1,000 veal calves;
 - (3) 700 mature dairy cattle (whether milkers or dry cows);
 - (4) 2,500 swine weighing more than 55 pounds;
 - (5) 10,000 swine weighing less than 55 pounds;
 - (6) 500 horses;
 - (7) 10,000 sheep or lambs;
 - (8) 55,000 turkeys;
 - (9) 125,000 chickens (other than laying hens if the operation does not use a liquid waste handling system);
 - (10) 30,000 laying hens or broilers (if the operation uses liquid waste handling system);
 - (11) 82,000 laying hens (if the operation does not use a liquid waste handling system);
 - (12) 5,000 ducks (if the operation uses a liquid waste handling system); or
 - (13) 30,000 ducks (if the operation does not use a liquid waste handling system).

- (b) Medium CAFO - Any animal feeding operation that discharges pollutants into water in the state either through a man-made ditch, flushing system, or other similar man-made device, or directly into water in the state with the following number of animals:
 - (1) 300 to 999 cattle other than mature dairy cattle or veal calves. Cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs;

- (2) 200 to 699 mature dairy cattle (whether milking or dry cows);
 - (3) 300 to 999 veal calves;
 - (4) 750 to 2,499 swine each weighing 55 pounds or more;
 - (5) 3,000 to 9,999 swine each weighing less than 55 pounds;
 - (6) 150 to 499 horses;
 - (7) 3,000 to 9,999 sheep or lambs;
 - (8) 16,500 to 54,999 turkeys;
 - (9) 37,500 to 124,999 chickens (other than laying hens if the operation does not use a liquid waste handling system);
 - (10) 9,000 to 29,999 laying hens or broilers (if the operation uses liquid waste handling system);
 - (11) 25,000 to 81,999 laying hens (if the operation does not use a liquid waste handling system);
 - (12) 1,500 to 4,999 ducks (if the operation uses a liquid waste handling system); or
 - (13) 10,000 to 29,999 ducks (if the operation does not use a liquid waste handling system).
- (c) Small CAFO - Any animal feeding operation that is designated by the executive director as a CAFO because it is a significant contributor of pollutants into water in the state and is not a large or medium CAFO.
- (d) State-only CAFO - An AFO that falls within the range of animals in subparagraph (b) of this paragraph and that is either located in the dairy outreach program areas or designated by the Executive Director as a CAFO because it is a significant contributor of pollutants into water in the state. A state-only CAFO is authorized under state law.

Control facility - Any system used for the collection and retention of manure, sludge, or wastewater on the premises until their ultimate use or disposal. This includes all collection ditches, conduits, and swales for the collection of manure, sludge, or wastewater, and all retention control structures.

Crop Removal - The amount of nutrients contained in and removed by harvest of the proposed crop.

Crop Requirement - The amount of nutrients that must be present in the soil in order to insure that the crop nutrient needs are met, while accounting for nutrients that may become unavailable to the crop due to adsorption to soil particles or other natural causes.

Dairy outreach program areas - The area including all of the following counties: Erath, Bosque, Hamilton, Comanche, Johnson, Hopkins, Wood, and Rains.

Edwards Aquifer - As defined in 30 TAC §213.3.

Edwards Aquifer recharge zone - As defined in 30 TAC §213.3.

Groundwater - Subsurface water that occurs below the water table in soils and geologic formations that are saturated and is other than underflow of a stream or an underground stream.

Hydrologic connection - The connection and exchange between surface water and groundwater.

Land application - The act of applying manure, sludge, or wastewater associated with the animal feeding operation including distribution to, or incorporation into, the soil mantle primarily for beneficial use purposes.

Land management unit (LMU) - An area of land owned, operated, controlled, rented or leased by a concentrated animal feeding operation (CAFO) permittee to which manure, sludge, or wastewater from the CAFO is or may be applied. This includes land associated with a single center pivot system or a tract of land on which similar soil characteristics exist and similar management practices are being used. Land management units include historical waste application fields. The term "land management units" does not apply to any lands not owned, operated, controlled, rented or leased by the CAFO permittee for the purpose of off-site land application of manure, sludge, or wastewater wherein the manure/sludge is given or sold to others for land application.

Liner - Any barrier in the form of a layer, membrane or blanket, either naturally existing, constructed or installed, to prevent a significant hydrologic connection between liquids contained in retention control structures and water in the state.

Liquid waste handling system - A system in which freshwater or wastewater is used for transporting and land applying waste.

Major sole-source impairment zone - A watershed that contains a reservoir:

- (a) that is used by a municipality as a sole source of drinking water supply for a population, inside and outside of its municipal boundaries, of more than 140,000; and
- (b) at least half of the water flowing into which is from a source that, on September 1, 2001, is on the list of impaired state waters adopted by the commission as required by 33 United States Code, §1313(d), as amended:
 - (1) at least in part because of concerns regarding pathogens and phosphorus; and
 - (2) for which the commission, at some time, has prepared and submitted a total maximum daily load standard.

Manure - Feces and/or urine excreted by animals. Manure includes litter, bedding, compost, feed, and other raw materials commingled with feces and/or urine.

Natural Resources Conservation Service (NRCS) - An agency of the United States Department of Agriculture which provides assistance to agricultural producers for planning and installation of conservation practices through conservation programs and technical programs.

New source - New source is defined in 30 TAC §305.2 (relating to Definitions). The criteria for new source determination are in 30 TAC §305.534(b).

Notice of change (NOC) - A written submission to the Executive Director from a permittee authorized under a general permit, providing information on changes to information previously provided to the Commission, or any changes with respect to the nature or operations of the regulated entity or the characteristics of the discharge.

Notice of intent (NOI) - A written submission to the Executive Director from an applicant requesting coverage under the terms of a general permit.

Notice of termination (NOT) - A written submission to the Executive Director from a permittee authorized under a general permit requesting termination of coverage under the general permit.

Nuisance - Any discharge of air contaminant(s), including but not limited to odors, of sufficient concentration and duration that are or may tend to be injurious to or which adversely affects human health or welfare, animal life, vegetation, or property, or which interferes with the normal use and enjoyment of animal life, vegetation, or property.

Nutrient Management Plan (NMP) - The NRCS Practice Standard Code 590 plan. A plan to address the amount, source, placement, form and timing of the application of all nutrients and soil amendments.

Nutrient Utilization Plan (NUP) - a plan to evaluate and address site specific characteristics of a LMU to ensure that the beneficial use of manure, sludge, or wastewater is conducted in a manner to prevent adverse impacts on water quality.

100-year flood plain - Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.

100-year, 24-hour rainfall event - The maximum rainfall event with a probable recurrence interval of once in 100 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall information developed therefrom.

Open lot - Pens or similar confinement areas with dirt, concrete, or other paved or hard surfaces wherein livestock or poultry are substantially or entirely exposed to the outside environment except for small portions of the total confinement area affording protection by windbreaks or small shed-type shade areas and that do not sustain crops, vegetation, forage growth, or post harvest residues in the normal growing season. The term open lot is synonymous with the terms dirt lot, or dry lot, for livestock or poultry, as these terms are commonly used in the agricultural industry.

Operational - The facility is constructed to a point at which animals may be stabled, confined, fed, and maintained in accordance with this permit. The facility does not have to be operating at the maximum number of animals allowed in the permit.

Operator - The person responsible for the overall operation of a facility or part of a facility.

Permittee - Any person issued an individual permit or order or covered by a general permit.

Pesticide - A substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest, or any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

Playa - A flat-floored, clayey bottom of an undrained basin that is located in an arid or semi-arid part of the state, is naturally dry most of the year, and collects runoff from rain but is subject to rapid evaporation.

Process generated wastewater - Any water directly or indirectly used in the operation of an animal feeding operation (such as spillage or overflow from animal or poultry watering systems which comes in contact with waste; washing, cleaning, or flushing pens, barns, manure/slurry pits; direct contact swimming, washing, or spray cooling of animals; and dust control), including water used in or resulting from the production of animals or poultry or direct products (e.g., milk, meat, or eggs).

Production Area - that part of a CAFO that includes, but is not limited to, the animal confinement area, the manure storage area, the raw materials storage area, and the control facilities.

Professional Geoscientist (PG) - A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with the requirements for professional practice.

Protection zone - The area within the watershed of a sole-source surface drinking water supply that is:

- (a) within two miles of the normal pool elevation, as shown on a United States Geological Survey (USGS) 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir;
- (b) within two miles of that part of a perennial stream that is:
 - (1) a tributary of a sole-source drinking water supply; and
 - (2) within three linear miles upstream of the normal pool elevation, as shown on a USGS 7 1/2-minute quadrangle topographic map, of a sole-source drinking water supply reservoir; or
- (c) within two miles of a sole-source surface drinking water supply river, extending three linear miles upstream from the sole-source water supply intake point.

Recharge feature - Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connections between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connection include, but are not limited to: faults; fractures; sinkholes or other macro pores that allows direct surface infiltration; a permeable or a shallow soil material that overlies an aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer.

Retention control structure (RCS) - Any basins, ponds, pits, tanks, conveyances, and lagoons used to store and/or treat manure, wastewater, and sludge. This does not include conveyance systems such as irrigation piping or ditches that are designed and maintained to convey but not store any manure or wastewater.

Significant Expansion -

- (a) Any change to the CAFO that increases the waste production at the CAFO by more than 50%, above the maximum operating capacity stated in the initial authorization for the facility under TXG920000; or
- (b) Any change to the CAFO that increases the waste production at the CAFO on or after:
 - (1) 5 years from the effective date of authorization for a facility authorized on or after July 20, 2009; or
 - (2) July 20, 2014 for a facility authorized prior to July 20, 2009.

Sludge - Solid, semi-solid, or slurry waste generated during the treatment of and/or storage of any wastewater. The material resulting from treatment, coagulation, or sedimentation of waste in a retention control structure. 30 TAC §312 rules covering sludge do not apply to this permit.

Sole-source surface drinking water supply - A body of surface water that is identified as a public water supply in 30 TAC §307.10, Appendix A and is the sole source of supply of a public water supply system, exclusive of emergency water connections.

Texas State Soil and Water Conservation Board (TSSWCB) - The state agency charged with the overall responsibility for administering and coordinating the state's soil and water conservation program with the state's soil and water conservation districts. The TSSWCB is the lead agency for the planning, management and abatement of agricultural and silvicultural nonpoint source pollution.

25-year, 24-hour rainfall event - The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours, as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall information.

Wastewater - Any water, including process generated wastewater and precipitation, which comes into contact with any manure, sludge, bedding, or any raw material or intermediate or

final material or product used in or resulting from the production of animals or poultry or direct products (e.g., milk, meat, or eggs).

Water in the state - Groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

Well - Any artificial excavation into and/or below the surface of the earth whether in use, unused, abandoned, capped, or plugged that may be further described as one or more of the following:

- (a) an excavation designed to explore for, produce, capture, recharge, or recover water, any mineral, compound, gas, or oil from beneath the land surface;
- (b) an excavation designed for the purpose of monitoring any of the physical or chemical properties of water, minerals, geology, or geothermal properties that exist or may exist below the land surface;
- (c) an excavation designed to inject or place any liquid, solid, gas, vapor, or any combination of liquid, solid, gas, or vapor into any soil or geologic formation below the land surface; or
- (d) an excavation designed to lower a water or liquid surface below the land surface either temporarily or permanently for any reason.

Part II. Permit Applicability and Coverage

A. Discharges Eligible for Authorization

This general permit provides authorization for facilities defined or designated as CAFOs to discharge manure, sludge, and wastewater associated from the operation of a concentrated animal feeding operation (CAFO) into or adjacent to surface water in the state. The executive director may designate any AFO as a CAFO upon determining that it is a significant contributor of pollutants to water in the state. Discharges to surface water in the state may occur from a CAFO designed, constructed, and properly operated and maintained under the provisions of this general permit. Manure, sludge, and wastewater generated by a CAFO shall be retained and used in an appropriate and beneficial manner as provided in this general permit.

B. Limitations on Coverage

1. Limitations Based on Facility Location

Discharges from the following CAFOs are not eligible for coverage under this general permit and must be authorized under an individual permit:

- (a) Except for an existing CAFO which was authorized by the Commission prior to January 10, 1997, any CAFO located within one mile of Coastal

Natural Resource Areas as defined by §33.203 of the Texas Natural Resources Code.

- (b) Any dairy CAFO located in a major sole-source impairment zone.
- (c) Any CAFO where any part of the production area of the CAFO is located or proposed to be located within the protection zone of a sole-source surface drinking water supply. This paragraph does not apply to a poultry operation that does not use a liquid waste handling system, which is commonly referred to as a dry litter poultry operation.
- (d) Any CAFO where any part of a production area or land management unit (LMU) is located in a watershed of a segment listed on the current EPA approved 303(d) list of impaired waters as required by 33 USC §1313(d) where a Total Maximum Daily Load (TMDL) implementation plan has been adopted by the Commission that established additional water quality protection measures for CAFOs which are not required by the CAFO general permit.
- (e) Any CAFO that has a site or customer classification that is a poor performer under 30 TAC §60 (relating to Compliance History).
- (f) Any CAFO required to obtain and operate under an individual permit by the Executive Director.

2. Other Limitations

Discharges are not eligible for authorization under this general permit where prohibited by:

- (a) 30 TAC §311 (relating to Watershed Protection);
- (b) 30 TAC §213 (relating to the Edwards Aquifer); or
- (c) any other applicable rules or laws.

3. Denial of Authorization

- (a) The Executive Director may deny an application for authorization under this general permit, and may require that the applicant apply for an individual permit, if the Executive Director determines that the discharge will not meet water quality standards.
- (b) The executive director may deny an NOI or revoke authorization under this general permit if the applicant submits a false affidavit relating to public notice or public meeting.
- (c) The Executive Director may deny, cancel, revoke, or suspend authorization to discharge under this general permit based on a finding of historical and significant noncompliance.
- (d) Denial of authorization to discharge under this general permit or suspension of a permittee's authorization under this general permit shall be done according to commission rules in 30 TAC §205 (relating to General Permits for Waste Discharges).

C. Obtaining Authorization

1. Application for Water Quality Authorization
 - (a) Submission of a Notice of Intent (NOI) is an acknowledgment that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit.
 - (b) The NOI must contain all information as prescribed on forms provided by the Executive Director.
 - (c) Provisional authorization to discharge under the terms and conditions of this general permit begins 48 hours after a completed NOI is postmarked for delivery to the TCEQ. If the NOI is submitted electronically, provisional authorization to discharge under the terms and conditions of this general permit begins immediately following confirmation of receipt of the NOI by the TCEQ. For a new CAFO or existing CAFOs that are significantly expanding, authorization under the terms and conditions of this general permit begins when the applicant is issued a written approval of the NOI.
 - (d) Following review of the NOI, the Executive Director shall either confirm coverage by providing a notification and an authorization number to the applicant or notify the applicant that coverage under this general permit is denied.
 - (e) A copy of the NOI, along with any correspondence from the Executive Director confirming permit coverage, shall be retained at the site and kept with the pollution prevention plan (PPP).
 - (f) The owner of a facility must be the applicant identified on the NOI for authorization. If the facility is owned by one person and operated by another the operator may be a co-applicant.

2. An applicant for a new CAFO operation or significant expansion of an existing CAFO must adhere to the following procedures:
 - (a) The applicant must submit the NOI, and a complete technical application to the executive director.
 - (b) After the applicant receives written instructions from the TCEQ's Office of Chief Clerk, the applicant must publish notice of the executive director's preliminary determination on the NOI and technical application.
 - (c) The notice must include:
 - (1) the legal name of the CAFO applicant;
 - (2) identify whether NOI is for a new operation or expansion of existing operation;
 - (3) the address of the applicant;
 - (4) a brief summary of the information included in the NOI, such as the general location of the CAFO and land management units utilized by the CAFO, the proposed maximum number of animals

- for the CAFO, and a description of the receiving water and discharge route for any discharge;
- (5) the location and mailing address where the public may provide comments to the TCEQ;
 - (6) the public location where copies of the NOI, executive director's technical summary and CAFO general permit may be reviewed; and
 - (7) if required by the executive director, the date, time and location of the public meeting.
- (d) This notice must be published at least once in a newspaper of general circulation in the county in which the CAFO is located or proposed to be located. This notice shall provide opportunity for the public to submit comments on the NOI and executive director's technical summary. In addition, the notice shall allow the public to request a public meeting for a new CAFO if there is significant public interest.
 - (e) The public comment period begins on the first date the notice is published and ends 30 days later unless a public meeting is held. The public may submit written comments to the TCEQ Office of Chief Clerk during the comment period detailing how the NOI for the CAFO fails to meet the technical requirements or conditions of this general permit.
 - (f) If significant interest exists, the executive director will direct the applicant for a new CAFO to publish a notice of the public meeting and hold the public meeting. The applicant must publish notice of a public meeting at least 30 days before the meeting and hold the public meeting in the county where the facility is located or proposed to be located. TCEQ staff will facilitate the meeting.
 - (g) At the public meeting, the applicant for a new CAFO shall describe the proposed operations and provide maps and other facility data. The applicant shall provide a sign in sheet for attendees to register their names and addresses and furnish the sheet to the executive director. The public meeting held under this general permit is not an evidentiary proceeding.
 - (h) The applicant must publish public notice and if required, notice of the public meeting in accordance with Part II.C.2(c) at least once in a newspaper of general circulation in the county in which the CAFO is proposed to be located.
 - (i) The applicant must file with the Chief Clerk a copy and an affidavit of the publication of notice(s) within 60 days of receiving the written instructions from the Office of Chief Clerk.
 - (j) The executive director, after considering public comment, shall approve or deny the NOI based on whether the NOI and technical application meet the requirements of this general permit.
 - (k) Persons whose names and addresses appear legibly on the sign in sheet from the public meeting and persons who submitted written comments to the TCEQ will be notified by the TCEQ's Office of Chief Clerk of the executive director's decision and provided the final technical summary on which the decision was based.

3. Contents of the NOI

Applicants seeking authorization to discharge under this general permit must submit a completed NOI on a form approved by the Executive Director. The NOI shall, at a minimum, include:

- (a) the legal name and address of the applicant;
- (b) the facility name and address;
- (c) the location of the CAFO;
- (d) the latitude and longitude of the production area;
- (e) a description and the size of the CAFO facility;
- (f) the number and type of animals and their housing situation;
- (g) the type of containment;
- (h) each retention control structure capacity;
- (i) the estimated amount of manure and wastewater generated per year;
- (j) the estimated amount of manure and wastewater transferred off-site per year;
- (k) a description of each LMU including:
 - (1) total manure or wastewater acreage;
 - (2) the estimated land application rate; and
- (l) a topographic map or other diagram as specified in the instructions to the NOI.

4. Pollution Prevention Plan (PPP)

A PPP must be developed according to the requirements of this permit before an NOI for permit coverage is submitted. The plan must be developed according to the requirements of Part III of this general permit and be signed according to requirements of Part V.J of this general permit.

5. Fees

- (a) Application Fees
 - (1) An application fee must be submitted with the NOI:
 - (i) \$75 for renewal or change of permittee or co-permittee submitted by online e-permitting;
 - (ii) \$100 for renewal or change of permittee or co-permittee submitted by paper;
 - (iii) \$350 for a new CAFO; or
 - (iv) \$350 for a significant expansion of an existing CAFO.
 - (2) A fee is not required for submission of a Notice of Termination (NOT) or Notice of Change (NOC).
- (b) Annual Water Quality Fee

CAFOs authorized under this general permit must pay an annual water quality fee of \$800.00 except for dry litter poultry CAFOs which must pay an annual water quality fee of \$300.00.

6. Revocation of Individual Permit

For facilities authorized under an individual permit, the submittal of a NOI constitutes the applicant's intent to be authorized under this general permit and also serves as a request to voluntarily revoke coverage under the individual permit. The individual permit will be revoked following issuance of the acknowledgment letter providing coverage under the general permit.

7. Change of Ownership or Operational Control

Authorization under this general permit is not transferable. If the permittee, of the regulated entity changes, the present permittee must submit an NOT and the new owner or operator, if identified as a co-permittee, must submit an NOI. The NOT and NOI must be submitted not later than 10 days prior to the change in owner or operator status. The NOT and NOI will not be processed until the executive director is notified, in writing, that the change in owner or operator status has occurred. Any change in a permittee's Charter Number, as registered with the Texas Secretary of State, is considered a change in ownership of the company and would require the new owner or operator to apply for permit coverage as stated above. If the NOT and NOI are submitted as required under this provision, there will be no lapse in authorization for the facility.

8. Notice of Change (NOC) Letter

A NOC letter or form must be submitted with supplemental or corrected information within 14 days following:

- (a) the time when the permittee becomes aware that it failed to submit any relevant facts or incorrect information in the NOI or NOI attachments; or
- (b) the time when relevant facts in the NOI or NOI attachments change, including but not limited to: permittee address, permittee phone number, any increase in waste production other than those defined as a significant expansion, LMU acreage or boundaries, construction or modification of a RCS, and/or any change to the site map.

9. Air Quality Authorization

Air quality authorization under the Texas Clean Air Act, Texas Health and Safety Code §382.051, is required for all CAFOs, regardless of their size. Depending on its specific characteristics, a CAFO may obtain air quality authorization in one of three ways:

- (a) by meeting the requirements of a permit-by-rule under 30 TAC §106, Subchapter F (relating to Animal Confinement);
- (b) by obtaining an individual permit under 30 TAC §116 (relating to Control of Air Pollution by Permits for New Construction or Modification); or

- (c) by meeting the requirements of the air standard permit outlined in 30 TAC §321.43 (relating to Air Standard Permit Authorization for Concentrated Animal Feeding Operations).

D. Termination of Coverage

1. A permittee shall terminate coverage under this general permit through the submittal of a NOT when the owner or operator, if identified as a co-permittee, of the facility changes, the discharge becomes authorized under an individual permit, or the use of the property changes and is no longer subject to regulation under this general permit. If the facility is no longer subject to this general permit, the permittee must close the facility in accordance with Part III.D of this general permit prior to terminating coverage and filing the NOT.
2. One of the following must be submitted within 24 hours of submitting a NOT:
 - (a) a NOI when the permittee or co-permittee of the facility changes,
 - (b) an individual permit application,
 - (c) certification by a licensed Texas professional engineer that closure has been completed, as required by Part III.D(3), or
 - (d) a statement from the permittee that the facility will be operated as an AFO not defined or designated as a CAFO.
3. The authorization will not be terminated until:
 - (a) final action is taken on the NOI or individual permit application,
 - (b) receipt of certification by a licensed Texas professional engineer that closure has been completed, or
 - (c) receipt of a statement from the permittee that the facility will be operated as an AFO not defined or designated as a CAFO.
4. This section does not prohibit the Executive Director from denying, cancelling, revoking, or suspending authorization to operate under this general permit, as allowed by Part II.B.3 of this permit and 30 TAC §205.4 (relating to Authorizations and Notices of Intent).

E. Authorization Under an Individual Permit

1. Individual Permit Alternative

Discharges eligible for authorization by this general permit may alternatively be authorized by an individual permit according to 30 TAC §§281 and 305 (relating to consolidated permits).

2. Transfer of Authorization to an Individual Permit

When an individual permit is issued for a discharge that is currently authorized under this general permit, the permittee shall terminate coverage under this

general permit and shall submit a NOT to the Executive Director. The authorization under this general permit will be terminated when the Executive Director takes final action on the individual permit and receives the NOT. A facility can not be authorized under both a general permit and an individual permit.

F. Permit Expiration

1. Permit Term

This general permit is issued for a term not to exceed five (5) years. All active authorizations expire on the date provided on page one (1) of this permit. Authorizations for discharge under the provisions of this general permit may be issued until the expiration date of the permit. This general permit may be amended, revoked, or cancelled by the Commission after notice and comment as provided by 30 TAC §§205.3 and 205.5.

2. Permit Renewal

If before the expiration of this permit, the Commission has made a determination to renew this general permit, the general permit shall remain in effect after the expiration date for those existing discharges covered by the permit. The general permit shall remain in effect for these dischargers until the date on which the Commission takes final action on the proposal to reissue this permit. No new NOIs will be accepted or new authorizations honored for authorization under the general permit after the expiration date.

3. Application following Renewal

Upon issuance of a renewed or amended general permit, all facilities, including those covered under the expired general permit, shall submit a NOI or NOT in accordance with the requirements of the renewed or amended permit, within 120 days after the effective date of this general permit. Failure to submit a NOI or NOT by the deadline will result in expiration of the existing authorization to operate under the general permit.

4. Expiration without Renewal

According to 30 TAC §205.5(d) (relating to Permit Duration, Amendment, and Renewal), if the Commission has made a determination that the general permit will not be renewed at least 90 days before the expiration date, permittees authorized under this general permit shall submit an application for an individual permit before the expiration date. If an application for an individual permit is submitted before the general permit expiration date, authorization under the expired general permit remains in effect until either the issuance or denial of an individual permit.

G. Construction and Operational Deadlines

1. Any previously authorized CAFO that renews their authorization must be operational within 18 months of the effective date of this permit. Failure to comply with this provision will result in revocation of the authorization to operate under this permit. Upon written request to the TCEQ Water Quality Division, the executive director may grant a one-time, 18 month, extension to this requirement. The facility does not have to be operating at the maximum number of animals allowed in the permit.
2. A new CAFO authorized after the effective date of this permit shall be operational within 18 months of the effective date of their authorization. Failure to comply with this provision will result in revocation of the authorization to operate under this permit. Upon written request to the TCEQ Water Quality Division, the executive director may grant a one-time, 18 month, extension to this requirement. The facility does not have to be operating at the maximum number of animals allowed in the permit.

Part III. Pollution Prevention Plan (PPP) Requirements**A. Technical Requirements**

1. Pollution Prevention Plan General Requirements:
 - (a) A PPP shall be developed for each CAFO covered under this general permit. Pollution prevention plans shall:
 - (1) be prepared in accordance with good engineering practices;
 - (2) include measures necessary to limit the discharge of pollutants to surface water in the state;
 - (3) describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of this permit;
 - (4) include all information listed in Part III.A; and
 - (5) identify specific individual(s) who is/are responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP.
 - (b) Amending the PPP

The permittee shall revise the PPP:

 - (1) before any change in the acreage or boundaries of LMUs;
 - (2) before any increase in the maximum number of animals;
 - (3) after any new construction or modification of control facilities;
 - (4) before any change which has a significant effect on the potential for the discharge of pollutants to water in the state;

- (5) if the PPP is not effective in achieving the general objectives of controlling pollutants in discharges from the production area or LMUs; or
- (6) within 90 days following written notification from the executive director that the plan does not meet one or more of the minimum requirements of this general permit.

(c) Equivalent PPP Standards

Where design, planning, construction, operation and maintenance or other documentation equivalent to PPP requirements are contained in site specific plans prepared and certified by the Natural Resources Conservation Service (NRCS), Texas State Soil and Water Conservation Board, or their designee, that documentation may be used to document Best Management Practices (BMPs) or applicable portions of the PPP requirements in this general permit. Where provisions in the certified plan are substituted for applicable BMPs or portions of the PPP, the PPP must refer to the appropriate section of the certified plan. If the PPP contains reference to a certified plan, a copy of the certified plan must be kept in the PPP.

2. Maps

The permittee shall maintain and update the following maps as part of the PPP:

(a) Site Map

The map shall show the production area and include, at a minimum, pens and open lots, barns, berms, permanent manure storage areas, composting areas, control facilities including RCSs, water wells (abandoned and in use), surface water in the state, and dead animal burial sites.

(b) Land Management Unit Map

The map shall include, at a minimum, the following information: the boundary and acreage of each LMU; all buffer zones required by this permit; the location of the production area; water wells, abandoned and in use, which are on-site or within 500 feet of the facility boundary; all surface water in the state located on-site and within one mile of the property boundary; and the facility boundary.

(c) Combined maps

Because of the unique nature of some sites it is acceptable to combine the elements of the Land Management Unit Map with the Site Map as long as map features can be clearly determined.

3. Recharge Feature Certification

- (a) The permittee shall have a recharge feature certification developed in accordance with the executive director's guidance, RG-433 Guidelines for Identifying and Protecting Aquifer Recharge Features. Use of the forms provided in RG-433 is optional. The certification must be signed and sealed by a licensed Texas professional engineer, or a licensed Texas professional geoscientist, documenting the absence or presence of any natural or artificial recharge features identified on any tracts of land owned, operated, controlled, rented, or leased by the permittee and to be used as a part of a CAFO or LMU.
- (b) If the recharge feature certification identifies the presence of recharge features, the applicant shall have protective measures developed, signed and sealed by a licensed Texas professional engineer, or licensed Texas professional geoscientist, as appropriate and in conformance with the Texas Engineering Practices Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts. The protective measures must prevent impacts to an aquifer from any recharge features present. The protective measures must include at least one of the following:
 - (1) measures to protect each located recharge feature, such as impervious cover, berms, buffer zones, or other equivalent protective measures; or
 - (2) a detailed groundwater monitoring plan, in accordance with Part III.A.15(b); or
 - (3) provisions for any other similar method or approach demonstrated by the applicant to be protective of any associated recharge feature and approved by the commission.
- (c) The permittee must implement the protective measures.

4. Potential Pollutant Sources/Site Evaluation

(a) Potential Pollutant Sources

Potential pollutant sources include any activity or material of sufficient quantity that may reasonably be expected to add pollutants to surface water in the state from the facility. The permittee shall conduct a thorough site inspection of the facility to identify all potential pollutant sources. The inspection shall encompass all land that is part of the production area and LMUs. An evaluation of potential pollutant sources shall identify the types of pollutant sources, provide a description of the pollutant sources, and indicate all measures that will be used to prevent contamination from the pollutant sources. The type of pollutant sources found at any particular site varies depending upon a number of factors, including, but

not limited to: site location, historical land use, proposed facility type, and land application practices. Potential pollutant sources include, but are not limited to, the following: manure, sludge, wastewater, dust, silage stockpiles, fuel storage tanks, pesticides and inorganic fertilizers, lubricants, dead animals, feed and bedding waste, bulk cleaning chemicals, and compost.

(b) Soil Erosion

The permittee shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. If these areas have the potential to contribute pollutants to surface water in the state, the permittee shall identify in the PPP measures used to limit erosion and pollutant runoff.

(c) Well Protection Requirements

- (1) The permittee must not locate or operate RCSs, holding pens, or LMUs within the following buffer zones except in accordance with paragraph 2 in this section:
 - (i) public water supply wells - 500 feet;
 - (ii) wells used exclusively for private water supply - 150 feet;
or
 - (iii) wells used exclusively for agriculture irrigation - 100 feet.
- (2) The permittee may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are protected in accordance with the recharge feature evaluation and certification required in Part III.A.3. For new wells drilled after July 20, 2004, documentation supporting variances of the buffer zones which were previously authorized must be kept on-site and made available to TCEQ personnel upon request.
- (3) Construction of any new water well must be done in accordance with the requirements of this general permit and 16 TAC §76, relating to Water Well Drillers and Water Well Pump Installers.
- (4) All abandoned and unuseable wells shall be plugged according to 16 TAC §76.
- (5) The permittee shall not locate new LMUs within the required well buffer zones unless additional wellhead protective measures are implemented that will prevent pollutants from entering the well and contaminating groundwater. An exception to the full well buffer zone for a private drinking water well or a water well used exclusively for agricultural irrigation may be approved by the

Executive Director if a licensed Texas professional engineer or licensed Texas professional geoscientist provides accurate documentation showing that additional wellhead protective measures will be or have been implemented that will prevent pollutants from entering the well and contaminating the groundwater. Additional protective measures may include a sanitary seal, annular seal, a steel sleeve or surface slab.

- (6) Irrigation of wastewater directly over a well head will require a structure protective of the wellhead that will prevent contact from irrigated wastewater.

- (d) Control Facilities

The PPP shall include the location and a description of control facilities. The appropriateness of any control facilities shall reflect the identified sources of pollutants at the CAFO.

- (e) 100-year Floodplain

A site evaluation shall show that all control facilities are located outside of the 100-year floodplain or protected from inundation and damage that may occur during the flood. Manure, sludge, or wastewater may only be applied to the areas in the 100-year floodplain at agronomic rates not to exceed the hydrologic needs of the crop.

5. Discharge Restrictions, Numeric Effluent Limitations, and Monitoring Requirements

- (a) Discharge Restrictions

- (1) In accordance with Part II.A. of this general permit, a discharge to surface water in the state may occur from a CAFO properly designed, constructed, operated and maintained under the provisions of this general permit. Manure, sludge, and wastewater generated by a CAFO shall be retained and used in an appropriate and beneficial manner as provided in this general permit.
- (2) Unless otherwise limited, manure, sludge, or wastewater may be discharged from a LMU or a RCS into or adjacent to water in the state from a CAFO authorized under this general permit resulting from any of the following conditions:
 - (i) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;

- (ii) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
 - (iii) a chronic/catastrophic rainfall discharge from a LMU that occurs because the permittee takes measures to de-water the RCS in accordance with Part III.A.9(b), relating to imminent overflow.
- (3) The permittee must comply with all applicable reporting, sampling, and analysis requirements associated with a discharge, in accordance with this general permit.
 - (4) There shall be no discharge of wastewater into surface water in the state from new source poultry, swine, or veal CAFOs. Wastewater must be contained in RCSs properly designed, constructed, operated, and maintained according to the provisions of this general permit.

(b) Numeric Effluent Limitations for Duck CAFOs

No discharge from a duck CAFO shall exceed the following numeric effluent limitations for any discharge to surface water in the state.

Parameter	Daily Maximum Limitation ¹	Monthly Average Limitation ¹	Daily Maximum Limitation ²	Monthly Average Limitation ²	Sample Type	Sample Frequency ³
BOD5	3.66	2.0	1.66	0.91	Grab	1/ day
Fecal Coliform	(⁴)	(⁴)	(⁴)	(⁴)	Grab	1/ day

¹ Pounds per 1000 ducks

² Kilograms per 1000 ducks

³ Sample shall be taken within the first 30 minutes following the initial discharge from a storm event and then once per day while discharging

⁴ Not to exceed MPN of 400 per 100 ml

(c) Monitoring Requirements for all CAFOs

The permittee shall sample all discharges to surface water in the state from RCSs and LMUs. The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab for the following parameters:

Parameter	Sample Type	Sample Frequency ¹
BOD ₅	Grab	1/event
Total Coliform	Grab	1/event

Fecal Coliform	Grab	1/event
Total Dissolved Solids (TDS)	Grab	1/event
Total Suspended Solids (TSS)	Grab	1/event
Nitrate (N)	Grab	1/event
Ammonia Nitrogen	Grab	1/event
Total Phosphorus	Grab	1/event
Pesticides ²	Grab	1/event

¹ Sample shall be taken within the first 30 minutes following the initial discharge

² Any pesticide which the permittee has reason to believe could be present in the wastewater

- (d) Analytical results from the numeric effluent limitations or monitoring requirements must be summarized, documented in the PPP, and reported according to Part IV.B.5 and 6. If the permittee is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.), the permittee must document why discharge samples could not be collected. Once dangerous conditions have passed, the permittee shall conduct the sampling and analyses required by Part III.A.5(c). In the event that a discharge occurs outside of the normal business hours of the testing laboratory, which causes the maximum hold time to lapse, the permittee shall collect a secondary sample from the RCS, in addition to the sample collected in accordance with Part III.A.5(c), and have it analyzed on the first business day for each parameter in which the maximum hold time has been exceeded.

6. Retention Control Structure (RCS) Design and Construction

(a) Certification

- (1) The permittee constructing a new or modifying an existing RCS shall ensure that all design and completed construction is certified by a licensed Texas professional engineer prior to use. The certification shall be signed and sealed in accordance with Texas State Board of Professional Engineers requirements.
- (2) Documentation of liner and capacity certifications by a licensed Texas professional engineer must be completed for each RCS prior to use and must be kept in the PPP.

(b) Design and Construction Standards

Each RCS, at a minimum, shall be designed and constructed in accordance with the technical standards developed by the NRCS, American Society of

Agricultural and Biological Engineers, American Society of Civil Engineers, or American Society of Testing Materials, or other technical standards approved by the executive director, that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas professional engineer shall document these variations and their appropriateness to the design.

(c) RCS Drainage Area

- (1) The drainage area shall be designed and maintained to minimize entry of uncontaminated runoff into RCSs. Uncontaminated runoff not diverted must be included in the RCS design calculations.
- (2) The drainage area shall be designed and maintained to minimize ponding or puddling of water outside the RCS.

(d) RCS Sizing

The RCS design plan must document the sources of information, assumptions and calculations used in determining the appropriate volume capacity of the RCSs. For all new construction and for all structural modifications of existing RCSs, each RCS shall be designed for the authorized number of animals and include the storage for the volumes listed below:

(1) Design Rainfall Event Runoff

- (i) New source swine, veal, or poultry CAFOs subject to the new source performance standards in 40 CFR §412.46 must have a RCS designed and constructed to meet or exceed the capacity required to contain runoff and direct precipitation from the 100-year, 24-hour rainfall event.
- (ii) All other CAFOs shall have a RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event.
- (iii) The design rainfall event volume shall include the runoff volume from all open lot surfaces, the runoff volume from all areas between open lot surfaces that is directed into the RCSs, the volume of rainfall from any roofed area that is directed into the RCSs, and the volume of direct rainfall on the surface of the RCS.

(2) Manure and Process Generated Wastewater

The RCS shall be designed to contain all manure entering the RCS and process generated wastewater produced during a 21-day, or greater, period.

(3) Sludge

The RCS shall be designed to contain the estimated storage volume for a minimum one year of sludge accumulation.

(4) Wastewater Treatment

For CAFOs authorized under the air standard permit in 30 TAC §321.43 (relating to Air Standard Permit for Animal Feeding Operations (AFOs)), the RCS shall be designed to contain any additional volume required for the design and treatment specifications or other options available related to the Air Standard Permit for Animal Feeding Operations.

(5) Hydrologic Needs Analysis (Water Balance) for Systems Using Irrigation

The RCS shall be designed for the authorized number of animals to include any storage volume required by a water balance that documents that the typical irrigation demands of the proposed crop and irrigated land area will not be exceeded. Precipitation inputs to the water balance shall be the average monthly precipitation taken from a National Weather Service current publication. The consumptive use requirements of the cropping system shall be developed on a monthly basis, and shall be calculated as a part of the water balance. The maximum required storage value calculated by the water balance shall not be maintained in the required storage volume for the design rainfall event. Wastewater application rates used in the water balance shall not induce uncontrolled runoff or create tailwater that causes a discharge. All relevant volumes accumulated during the storage period shall be considered in determining the water balance, including all of the following:

- (i) the volumes identified in Part III.A.6(d)(1) through (4);
- (ii) the storage volume required to contain all wastewater and runoff during periods of low crop demand;
- (iii) the evaporation volume from RCS surfaces;

- (iv) the volume applied to crops in response to crop demand; and
- (v) any additional storage volume required as a safety measure as determined by the system designer.

(6) Evaporation Systems

Evaporation systems shall be designed:

- (i) to withstand a ten-year (consecutive) period of maximum recorded monthly rainfall (other than catastrophic). In any month in which a catastrophic event occurs, the analysis shall replace such an event with not less than the long-term average rainfall for that month, as determined by a hydrologic needs analysis (water balance), and
- (ii) to maintain sufficient volume to contain the volume of rainfall and rainfall runoff from the design rainfall event without overflow. The depth for this volume must be at least one vertical foot allocated within the RCS above the volume required in item (i) above.

(e) Irrigation Equipment Design

The permittee shall ensure that the irrigation system design is capable of removing wastewater from the RCSs. RCSs shall be equipped with irrigation, or liquid removal systems capable of dewatering the RCSs whenever needed to restore the operating capacity. Dewatering equipment shall be maintained in proper working order.

(f) Embankment Design and Construction

For RCSs where the depth of water impounded against the embankment at the spillway elevation is three feet or more, the RCS is considered to be designed with an embankment. The PPP shall include a description of the design specifications for the retention control structure embankments. The following design specifications are required for all new construction and/or the modified portions of existing RCSs.

(1) Soil Requirements

Soils used in the embankment shall be free of foreign material such as rocks larger than 4 inches, trash, brush, and fallen trees.

(2) Embankment Lifts

The embankment shall be constructed in lifts or layers no more than eight inches compressed to six inches thick at a minimum compaction effort of 95 percent Standard Proctor Density (ASTM D698) at -1% to +3% optimum moisture content.

(3) Stabilize Embankment Walls

All embankment walls shall be stabilized to prevent erosion or deterioration.

(4) Compaction Testing

Embankment construction must be accompanied by certified compaction tests including in place density and moisture in accordance with ASTM D 1556, D 2167 or D 2937 for density and D 2216, D 4643, D 4944 or D 4959 for moisture, and D 2922-91 or D 6938-07 for moisture and density, or equivalent testing standards.

(5) Spillway or Equivalent Protection

Additional protection for new or modified portions of existing RCSs that are constructed with embankments designed to contain runoff from a drainage area shall be constructed with a spillway or other outflow device properly sized according to NRCS design and specifications to protect the integrity of the embankment.

(6) Embankment Protection

For all new construction and/or the modified portions of existing RCSs, each RCS must have a minimum of 2 vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of 2 vertical feet between the top of the embankment and the required storage capacity.

(g) Liner Requirements

For all new construction and for all structural modifications of existing RCSs only, each RCS must meet the requirements for lack of hydrologic connection or have a liner consistent with paragraph (2), (3), or (4) below.

(1) Lack of Hydrologic Connection

- (i) Documentation must show that there will be no significant leakage from the RCS; or that any leakage from the RCS will not migrate to water in the state. The lack of hydrologic connection documentation shall be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist and must include information on the hydraulic conductivity and thickness of the natural materials underlying and forming the walls of the containment structure up to the wetted perimeter.
- (ii) If it is claimed that no significant leakage would result from the use of in-situ materials, documentation must be provided that leakage will not migrate to waters in the state. The permittee must, at a minimum, include maps showing groundwater flow paths, or that the leakage enters a confined environment. The permittee shall also include a written determination by an NRCS engineer, licensed Texas professional engineer, or licensed Texas professional geoscientist that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and water in the state.

(2) RCS Liner using In-situ Material

In-situ material is undisturbed, in-place, native soil material. In-situ materials must at least meet the minimum criteria for hydraulic conductivity and thickness as described in Part III.A.6(g)(3). Samples shall be collected and analyzed in accordance with Part III.A.6(g)(5). The calculated specific discharge through the in-situ material must meet the requirements of Part III.A.6(g)(3). This documentation must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist.

(3) Constructed or Installed Earthen Liner

- (i) Constructed or installed liners must be designed by a licensed Texas professional engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. Compaction tests and post construction sampling and analyses, conducted in accordance with Part III.A.6(g)(5), will provide support for the liner certification.
- (ii) Liners shall be designed and constructed to have hydraulic conductivities no greater than 1×10^{-7} centimeters per

second (cm/sec), with a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1×10^{-6} cm/sec calculated using Darcy's Law with a water level at spillway depth.

- (iii) Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements as listed in Part III.A.6(f)(1), (2), and (4).

- (4) Geosynthetic liners.

Geosynthetic liners that meet the specific discharge standard in Part III.A.6(g)(3) are acceptable if certified by a licensed Texas professional engineer. Documentation must be presented to the Executive Director for review and approval before putting into service. Installation of the liner shall be certified by a licensed professional engineer that the liner and subgrade were completed according to the manufacturer's recommendations and current standards. Seams shall be completed in accordance with the manufacturer's requirement. When wedge weld seams are used, non-destructive seam testing shall be conducted on the complete length of the wedge weld by standard air pressure testing. The certification must document compliance with all of the following standards: ASTM D 5888 Storage and Handling of Geosynthetic Clay liners, ASTM D 5889 Quality Control of Geosynthetic Clay Liners, and ASTM D 6102 Guide for Installation of Geosynthetic Clay Liners.

- (5) Liner Sampling and Analyses of In-Situ Material or Earthen Liners.

- (i) The licensed Texas professional engineer or licensed Texas professional geoscientist shall use best professional practices to ensure that corings or other liner samples will be appropriately plugged with material that also meets liner requirements of this subsection.

- (ii) Samples shall be collected in accordance with ASTM D 1587 or other method approved by the executive director. For each RCS, a minimum of two core samples collected from the bottom of the RCS and a minimum of at least one core sample from each sidewall. Additional samples may be necessary based on the best professional judgment of the licensed professional engineer. Distribution of the samples

shall be representative of liner characteristics, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.

- (iii) For earthen liners, undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D 5084, whole pond seepage analysis as described in ASABE Paper Number 034130, Double Ring Infiltrometer (stand pipe), or other method approved by the executive director.

(6) Leak Detection System

If notified by the executive director that significant potential exists for the adverse impact of water in the state or drinking water from leakage of the RCS, the permittee shall install a leak detection system or monitoring well(s) in accordance with that notice. Documentation of compliance with the notification must be kept with the PPP, as well as copies of all sampling data.

7. Special Considerations for Existing RCSs

(a) Proper Construction

Any existing RCS that has been properly maintained without any modifications and shows no sign of structural problems or leakage is considered to be properly designed and constructed with respect to the RCS sizing, embankment design and construction, and liner requirements of this permit, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, the RCS must be certified by a licensed Texas professional engineer as providing protection equivalent to the requirements of this permit.

(b) Playas

A playa that is in use as a RCS, as allowed by Texas Water Code §26.048, and that shows no signs of leakage, is considered to satisfy all applicable design and construction requirements. Playas that meet this requirement are not subject to the five year liner maintenance review required by Part III.A.9(g).

(c) NRCS Plans

Any RCS built in accordance with site-specific NRCS plans and specifications are considered to be in compliance with the design and capacity requirements of this permit provided: 1) the site-specific conditions are the same as those used by the NRCS to develop the plan

(numbers of animals, runoff area, wastes generated, etc.) and 2) the RCS has been operated and maintained in accordance with the NRCS requirements.

8. Manure and Sludge Storage

- (a) Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability, and NRCS or equivalent standards.
- (b) Manure or sludge stored for more than 30 days must be stored within the drainage area of a RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from the storage area. All storage sites and structures located outside the drainage area shall be designated on the LMU map. Storage for more than 30 days is prohibited in the 100-year floodplain.
- (c) Temporary storage of manure or sludge shall not exceed 30 days and is allowed only in LMUs or a RCS drainage area. Temporary storage of manure and sludge in the 100-year flood plain, near water courses or near recharge features is prohibited unless protected from inundation and damage that may occur during the flood. Contaminated runoff from manure or sludge storage piles must be retained on site.

9. RCS Operation and Maintenance.

(a) Wastewater Levels.

The following requirements must be met for dewatering the RCS, unless the system is designed as an evaporation system in accordance with Part III.A.6(d)(6):

- (1) The permittee shall ensure that the required capacity in the RCS is available to contain rainfall and rainfall runoff from the design rainfall event. The permittee shall restore such capacity after each rainfall event or accumulation of manure or process generated wastewater that reduces such capacity, when conditions are favorable for irrigation. Favorable conditions shall be when the soil moisture level decreases so that irrigation will not cause runoff.
- (2) The normal operating wastewater level in the RCS shall be maintained in accordance with the design of the RCS. If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event (25-year or 100-year) the pollution prevention plan must document the conditions that resulted in this occurrence. As soon as irrigation is not prohibited, the permittee

shall irrigate until the water level is at or below the design rainfall level.

- (b) **Imminent Overflow.** If a RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, then the permittee shall take reasonable steps to irrigate wastewaters to LMUs only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from the LMU, the permittee shall collect samples from the drainage pathway at the point of discharge from the LMU in accordance with Part III.A.5(c), analyze the samples in accordance with Part III.A.5.c, and provide the appropriate notifications in Part IV.B.
- (c) **Permanent Pond Marker.** The permittee shall install and maintain a permanent pond marker in the RCS, visible from the top of the levee that identifies, either physically or by documentation in the PPP, the volume required for the design rainfall event and minimum treatment volume, if necessary.
- (d) **Rain Gauge.** A rain gauge capable of measuring the design rainfall event shall be kept on site and properly maintained.
- (e) **Sludge Removal.** Sludge shall be removed from the RCS in accordance with the design schedule for cleanout to prevent the accumulation of sludge from encroaching on the volumes reserved for minimum treatment, if necessary, and the design rainfall event.
- (f) **Liner Protection and Maintenance.**
 - (1) The permittee shall maintain the liner to inhibit infiltration of wastewaters.
 - (2) Liners must be protected from animals by fences or other protective devices.
 - (3) No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment.
 - (4) Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas professional engineer within 30 days following discovery of the damage.
 - (5) For re-certification of a liner following mechanical or structural damage, a minimum of one sample shall be collected and analyzed to document that the liner meets the requirements of the liner certification for that RCS prior to the damage.

- (g) Documentation of liner maintenance. The permittee shall have a licensed Texas professional engineer review the liner documentation and do a site evaluation every five years.

10. General Operating Requirements

- (a) Flush/Scrape Systems

CAFOs designed with flush/scrape systems shall be flushed/scraped in accordance with design criteria.

- (b) Pen Maintenance

Earthen pens shall be designed and maintained to ensure good drainage and minimize ponding.

- (c) Carcass Disposal

Carcasses shall be collected within 24 hours of death and properly disposed of within three days of death in accordance with the Texas Water Code Chapter 26, Texas Health and Safety Code Chapter 361, and 30 TAC §335 (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004 and 4 TAC §§31.3 and 58.31(b). The collection area for carcasses shall be addressed in the potential pollutant sources section of the PPP with management practices to prevent contamination of surface or groundwater; control access; and minimize odors.

11. Land Application

- (a) Nutrient Management Plan (NMP) Required

A permittee that is a Large CAFO must develop and implement a NMP, certified by an individual or employee of an entity identified in Part III.A.13(b), in accordance with the Texas Natural Resources Conservation Service Practice Standard (Code 590) upon coverage under this general permit. The NMP shall be updated annually to incorporate the most recent manure, sludge, wastewater, and soil analyses.

- (b) Land Application Requirements

All permittees must manage LMUs according to the following requirements.

- (1) Discharge of manure, sludge, or wastewater is prohibited from a LMU and shall not cause or contribute to a violation of surface water quality standards, contaminate groundwater, or create a nuisance condition.
- (2) Land application shall not occur when the ground is frozen or saturated or during rainfall events unless in accordance with Part III.A.9(b) of this permit.
- (3) Any land application of manure, sludge, and/or wastewater shall not exceed the planned crop requirements. Land application rates of manure, sludge and/or wastewaters shall be based on the total nutrient concentration, on a dry weight basis where applicable.
- (4) The land application of manure, sludge, and wastewater at agronomic rates and hydrologic needs shall not be considered surface disposal and is not prohibited.
- (5) Where manure, sludge, or wastewater is applied in accordance with a site-specific nutrient management plan that complies with Part III.A.11(a), precipitation-related runoff from LMUs is authorized as a pollutant discharge if the source is land associated with a CAFO in a major sole-source impairment zone; or an agricultural storm water discharge for all other sources as defined in 33 U.S.C. 1362 (14).
- (6) Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent tailwater discharges to waters in the state and prevent the occurrence of nuisance conditions.
- (7) A permittee introducing wastewater or chemicals to water well heads for the purpose of irrigation shall install backflow prevention devices in accordance with requirements contained in 16 TAC Chapter 76 (related to Water Well Drillers and Water Well Pump Installers) and 30 TAC Chapter 290 (relating to Public Drinking Water), as appropriate.
- (8) Land application at night shall only be allowed if there is no occupied residence(s) within 0.25 mile from the outer boundary of the actual area receiving manure, sludge, or wastewater application. In areas with an occupied residence within 0.25 mile from the outer boundary of the actual area receiving manure, sludge, or wastewater application, application shall only be allowed from one hour after sunrise until one hour before sunset, unless the current resident owner or lessee of such residences have, in writing, agreed to specified nighttime applications.

(c) Critical Phosphorus Level

A permittee shall not land apply any manure, sludge, or wastewater to the LMU except in accordance with Part III.A.13 when results of the annual soil analysis for extractable phosphorus indicate:

- (1) a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular LMU; or
- (2) a level greater than 350 ppm of extractable phosphorus in Zone 1 (zero to six-inch depth) for an LMU where the average annual rainfall is 25 inches or less and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less and the closest edge of the field is more than one mile from a named stream; or
- (3) if ordered by the commission to do so in order to protect the quality of waters in the state.

(d) Land Application without a NMP

Large CAFOs are required to develop and implement a NMP. For all other CAFOs, the permittee shall comply with the following land application requirements. Documentation for each LMU must include:

- (1) The location, description, and limitations contained in the USDA Soil Survey of the predominant soil series within the identified LMUs, and a plan to address the soil limitations;
- (2) The crop types, realistic yield goals, and rotations to be implemented on an annual basis based on the major soil series within the identified LMUs;
- (3) The procedures for calculating the application rates;
- (4) The results of the annual manure, sludge, wastewater, and soil analyses shall be used in determining application rates;
- (5) Projected rates of application of the manure, sludge, and wastewater in accordance with the crop requirement, as well as all data indicating the nutrients that will be applied to the LMUs; and
- (6) A description of the type of equipment and method of application to be used in applying the manure, sludge, and/or wastewater.

(e) Buffer Requirements

(1) Surface Water in the State

Vegetative buffer strips shall be maintained in accordance with Natural Resources Conservation Service Practice Standard Code 393. The minimum buffer shall be no less than 100 feet of vegetation to be maintained between all manure, sludge, and wastewater application areas and all surface water in the state. A buffer is not required for wastewater irrigation when applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited.

(2) Sink Holes

Manure, sludge, and wastewater may not be applied closer than 100 feet to any sinkhole. Alternatively, the permittee may substitute a 35-foot wide vegetative buffer where alternative conservation practices or field specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the 100-foot buffer.

(3) Impaired Water Bodies

For LMUs located within 200 feet of a main stem of an impaired segment listed on the current United States Environmental Protection Agency approved 303(d) list of impaired water bodies, for bacteria, nutrients and/or pathogens, the permittee must comply with the following requirements:

(a) Land application must be consistent with a NMP certified in accordance with NRCS Practice Standard Code 590 using the phosphorus index rating for impaired waters. The phosphorus index rating must be calculated using the NRCS Phosphorus Assessment Tool for Texas, Agronomy Technical Note Number 15, as amended.

(b) The permittee shall install and maintain one of the following between the land application area and the main stem of the impaired segment:

(i) a 200-foot vegetative buffer; or

- (ii) a 100 foot vegetative buffer and a filter strip or vegetative barrier, according to NRCS Practice Standard Codes 393 or 601.

12. Sampling and Testing

(a) Initial Sampling

Before commencing application of manure, sludge or wastewater on LMUs, the permittee shall:

- (1) collect and analyze at least one representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium, and
- (2) collect and analyze at least one representative soil sample from each LMU according to the procedures in this subsection. For LMUs that have not received manure, sludge, or wastewater within the previous year, initial sampling must be completed before re-starting land application to the LMU.

(b) Annual Sampling

- (1) A permittee shall collect soil samples and have them analyzed for each LMU where manure, sludge, or wastewater was applied during the preceding year according to the procedures in this subsection. For LMUs where neither manure, sludge, or wastewater was applied, the annual reporting requirement in Part IV.B.1. of this general permit must be met.
- (2) At least one representative sample of manure, sludge (if applicable), and wastewater shall be collected and analyzed annually for total nitrogen, total phosphorus, and total potassium.

(c) Soil Sampling Procedures

Sampling procedures shall employ accepted techniques of soil science for obtaining representative samples and analytical results.

- (1) Samples shall be collected using approved methods described in the executive director's guidance RG-408 entitled "Soil Sampling for Concentrated Animal Feeding Operations."
- (2) Samples shall be collected by the permittee or their designee and analyzed by a soil testing laboratory annually, except when crop rotations or inclement weather require a change in the sampling time. The PPP will contain documentation to verify reasons for adjusting sampling timeframe.

- (3) Obtain one composite sample for each soil depth zone per LMU and per uniform (soils with the same characteristics and texture) soil type within the LMU.
- (4) Composite samples shall be comprised of 10 - 15 randomly sampled cores obtained from each of the following soil depth zones:
 - (i) Zone 1: 0 - 6 inches where wastewater only is applied or manure and sludge is incorporated directly into the soil, or 0 - 2 inches where the manure and sludge is not incorporated into the soil. If a 0 - 2 inch sample is required, then an additional sample from the 2 - 6 inch soil depth zone shall be collected, and
 - (ii) Zone 2: 6 - 24 inches.

(d) Soil Analysis

The permittee shall have a laboratory analysis of the soil samples performed for physical and chemical parameters to include:

- (1) nitrate reported as nitrogen in ppm;
- (2) phosphorus (extractable, ppm) - (Mehlich III extractant and inductively coupled plasma (ICP) analysis);
- (3) potassium (extractable, ppm);
- (4) sodium (extractable, ppm);
- (5) magnesium (extractable, ppm);
- (6) calcium (extractable, ppm);
- (7) soluble salts (ppm) /electrical conductivity (dS/m) - determined from extract of 2:1 (v/v) water/soil mixture; and
- (8) soil water pH (soil:water, 1:2 ratio).

13. Nutrient Utilization Plan (NUP)

A nutrient management plan, based on crop removal, certified in accordance with the NRCS Practice Standard Code 590 complies with the requirements for an effective nutrient utilization plan.

- (a) A permittee shall not land apply any manure, sludge, or wastewater to the LMU except in accordance with a detailed NUP when results of the annual soil analysis for extractable phosphorus indicate:

- (1) a level greater than 200 ppm of extractable phosphorus (reported as P) in Zone 1 for a particular LMU; or
 - (2) a level greater than 350 ppm of extractable phosphorus in Zone 1 (zero to six-inch depth) for an LMU where the average annual rainfall is 25 inches or less and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less and the closest edge of the field is more than one mile from a named stream; or
 - (3) if ordered by the commission to do so in order to protect the quality of waters in the state.
- (b) The NUP must be developed and certified by one of the following individuals or employees of the following entities:
- (1) NRCS;
 - (2) a certified nutrient management specialist;
 - (3) the Texas State Soil and Water Conservation Board;
 - (4) the Texas AgriLife Extension Service;
 - (5) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas; or
 - (6) if the executive director determines that one of the entities listed in (1) - (5) cannot develop the plan in a timely manner, a Certified Professional Agronomist certified through the certification program of the American Society of Agronomy, a Certified Professional Soil Scientist certified through the certification program of the Soil Science Society of America, or a licensed geoscientist-soil scientist in Texas may develop the NUP with executive director approval.
- (c) The NUP must be submitted to and approved by the executive director prior to land application of manure, sludge, or wastewater to the affected LMU.
- (d) Land application under the terms of the NUP may resume 30 days after the plan is filed with the executive director, unless before that time the executive director has returned the plan for failure to comply with the requirements of this general permit.
- (e) Land application under an approved NUP shall not cause or contribute to a violation of water quality standards or create a nuisance.

- (f) The permittee shall ensure that the NUP, at a minimum, evaluates and addresses the following factors to assure that the beneficial use of manure, sludge, or wastewater is conducted in a manner that prevents phosphorus impacts to water quality:
 - (1) slope of LMUs (as a percentage) and distance of the land management unit from surface water in the state;
 - (2) average rainfall for the area for each month;
 - (3) the permeability of the most restrictive layer in the upper 24 inches of each LMU profile, and the available water holding capacity of the upper 24 inches of the predominant soil in each LMU;
 - (4) chemical characteristics of the waste, including total nitrogen and total phosphorus;
 - (5) recommended rates, methods, and schedules of application of manure, sludge, and wastewater for all LMUs;
 - (6) crop types, annual crop removal rate, and expected realistic yield for each crop; and
 - (7) best management practices to be used to prevent phosphorus impacts to water quality, including any physical structures and vegetative filter strips.

14. Preventative Maintenance Program

(a) Facility Inspections

(1) General Requirements

- (i) The permittee shall conduct weekly inspections of the control facility and land application equipment to determine preventative maintenance and/or repair needs. Permittees that do not use a RCS are required to conduct inspections for applicable portions of their operation according to the outlined schedule.
- (ii) Inspections shall include visual inspections and equipment testing to uncover conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.
- (iii) The PPP shall document the inspections and that appropriate action has been taken in response to deficiencies identified during the inspection. The record

documenting significant observations and the date of the observation shall be made during inspections and shall be retained in the facility's on-site PPP. A permittee that does not correct all the deficiencies within 30 days must submit to the executive director an explanation of the factors that prevented the correction of the deficiencies.

(2) Daily Inspections

Daily inspections must be conducted on all water lines which are located within the drainage area of the RCS. These daily inspections can be recorded in the PPP either daily or in the weekly report.

(3) Weekly inspections. Weekly inspections must be conducted on:

- (i) all control facilities and wastewater levels in the RCS; and
- (ii) equipment used for land application of manure, sludge, and/or wastewater.

(4) Monthly Inspections. Monthly inspections must be conducted on:

- (i) mortality management systems, including containers, burial sites, composting facilities, incinerators; and
- (ii) location of chemical storage and disposal, including pesticide containers.

(5) Annual Site Inspection

- (i) A complete site inspection of the CAFO and LMUs shall be conducted and documentation of the findings of the inspection made at least once per year.
- (ii) The inspection shall include:
 - (A) a review the list of potential pollutant sources to ensure it is current;
 - (B) the inspection of all controls and operations outlined in the PPP to reduce the potential for pollutants to be transported off the CAFO; and
 - (C) updating the PPP to reflect current conditions.

(b) Five Year Evaluation

Once every five years, any permittee who uses an RCS shall have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, and review existing liner documentation. The engineer shall complete and certify a report of their findings. The report must be kept in the PPP.

15. Management Documentation

The following documentation, as required, shall be retained by the permittee as part of the PPP and must be submitted to the executive director within five days of a written request.

(a) Spill Prevention and Recovery

The permittee shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur; materials, handling procedures and storage shall be specified. The permittee shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a clean up. The permittee shall store, use, and dispose of all herbicides and pesticides in accordance with label instructions. There shall be no disposal of herbicides, pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering a RCS as a result of stormwater transport of properly applied chemicals is not a violation of this general permit.

(b) Groundwater Monitoring Plan

(1) A groundwater monitoring plan shall be implemented by a permittee if:

(i) a playa is used as a RCS, as required by Texas Water Code §26.048, or

(ii) if required by the executive director.

(2) The groundwater monitoring plan shall specify procedures for:

(i) annually collecting a groundwater sample from each well that provides water for the facility;

(ii) having each sample analyzed for nitrate as nitrogen and chloride where a groundwater monitoring plan is required by (b)(1)(i), and for nitrate as nitrogen, total dissolved

solids, and chloride, where a groundwater monitoring plan is required by (b)(1)(ii), and

- (iii) comparing the analytical results to the baseline data.
 - (3) Data from any required groundwater monitoring must be submitted to the executive director annually and kept on site for five years with the PPP. The first year's sampling shall be considered the baseline data and must be retained on site for the life of the facility unless otherwise provided by the executive director.
 - (4) A groundwater monitoring plan required by (b)(1)(ii) shall be developed and certified by a licensed Texas professional engineer or licensed Texas professional geoscientist.
- (c) The permittee shall maintain a copy of the following documents in this section of the PPP, or if stored in other locations including binders, files, and electronic records, make them readily available during the course of an inspection or at the request of the Executive Director:
- (1) the recharge feature certification;
 - (2) the nutrient management plan or nutrient utilization plan, as applicable;
 - (3) the liner certifications or lack of hydrologic connection certification;
 - (4) any written agreement with a landowner which documents the allowance of nighttime application of manure, sludge, or wastewater, as required by Part III.A.11.(b)(8);
 - (5) the odor control plan, if required by the Air Standard Permit;
 - (6) all employee training documentation, including dates when training occurred and, for dairy outreach program area (DOPA) required training, verification of the date, time of attendance, and completion of training;
 - (7) the administratively complete and technically complete notice of intent and applicable attachments;
 - (8) the written authorization issued by the commission or executive director;
 - (9) all NOCs submitted to the executive director;
 - (10) all closure plans and post-closure documentation; and

(11) this general permit.

B. General Requirements

1. For any new or expanding CAFO, the permittee shall not construct any component of the production area in any stream, river, lake, wetland, or playa (except as defined by and in accordance with the Texas Water Code §26.048).
2. Animals confined on the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.
3. The permittee shall prevent the discharge of pesticide contaminated waters into surface water in the state. All wastes from dipping vats, pest and parasite control units, vehicle wash, disinfection stations and other facilities used for the application of potentially hazardous or toxic chemicals shall be handled and disposed of in a manner that prevents any significant pollutants from entering water in the state or creating a nuisance condition. All pesticides shall be stored, used, and disposed of in accordance with label instructions. There shall be no disposal of herbicides, pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering a RCS as a result of storm water transport of properly applied chemicals is not a violation of this general permit.
4. Composting on-site at a CAFO shall be performed in accordance with 30 TAC Chapter 332. CAFOs may compost waste generated on-site, including manures, bedding, feed, and dead animals. Pursuant to 30 TAC Chapter 332, the permittee may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of the RCS and must be shown on the site map and accounted for in the RCS design calculations.
5. CAFOs that maintain animals in pastures, must maintain crops, vegetation, forage growth, or post-harvest residues in the normal growing season, excluding the feed and/or water trough areas.
6. CAFOs shall be operated in such a manner as to prevent nuisance conditions of air pollution as mandated by Texas Health and Safety Code, Chapters 341 and 382.
7. The permittee shall take reasonable steps necessary to prevent adverse effects to human health or safety, or to the environment.
8. The permittee shall maintain control of the RCSs, required LMUs, and control facilities identified on the site map submitted with the NOI. In the event the

permittee loses ownership or possession of any of these areas, the permittee shall notify the executive director within 5 working days and file a NOC.

C. Training

1. Employee Training

- (a) CAFO employees who are responsible for work activities relating to compliance with provisions of this general permit must be regularly trained or informed of any information pertinent to the proper operation and maintenance of the facility and land application of manure, sludge, and/or wastewater.
- (b) Employee training shall address all levels of responsibility of the general components and goals of the PPP. Training shall include topics as appropriate such as land application of manure, sludge, and/or wastewater, proper operation and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up.
- (c) Permittees are responsible for determining the appropriate training frequency for different levels of personnel, and the PPP shall identify periodic dates for such training.

2. Operator Training

Dairy CAFO operators shall attend and complete training developed by the executive director and the Texas Cooperative Extension if any portion of the production area of the CAFO is located in the following counties: Bosque, Comanche, Erath, Hamilton, Hopkins, Johnson, Rains, and/or Wood. The training shall consist of the following:

- (a) an eight-hour course or its equivalent on animal waste management within 12 months of receiving initial authorization for a new CAFO operation; and
- (b) at least eight additional hours of continuing animal waste management education or its equivalent for each two-year period after completing the requirements for subsection (2)(a) of this Part.

D. Closure Requirements

- 1. The permittee shall submit a closure plan to the executive director and the appropriate TCEQ regional office within 90 days of permanently ceasing operations.
- 2. The closure plan shall be developed and certified by a licensed Texas professional engineer to meet the standards contained in the NRCS Practice Standard 360

(Closures of Waste Impoundments), as amended, and use the guidelines contained in the Texas Cooperative Extension / NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended.

3. The RCS or CAFO shall be properly closed within one year of TCEQ receipt of the closure plan. The RCS or CAFO is considered properly closed upon certification by a licensed Texas professional engineer that closure has been completed according to the closure plan.
4. The permittee shall maintain or renew its existing authorization and maintain compliance with the requirements of this general permit until the RCS or CAFO has been properly closed.

Part IV. Recordkeeping, Reporting, and Notification Requirements

A. Recordkeeping

The permittee shall keep records on site for a minimum of five years from the date the record was created and shall submit them within five days of a written request by the executive director. The following items must be included:

1. Records must be updated daily to include:
 - (a) all measurable rainfall events; and
 - (b) the wastewater levels in the RCS, as shown on the depth marker, shall be recorded whenever the daily rainfall exceeds 1.0 inch.
2. Records must be updated weekly to include:
 - (a) the wastewater levels in the RCS shown on the depth marker; and
 - (b) records of all manure, sludge, and wastewater beneficial used by the CAFO that shows the dates, times, and location of land application or removal from the CAFO.
 - (1) For a CAFO where manure, sludge, or wastewater is applied LMUs, such records must include the following information:
 - (i) date of manure, sludge, or wastewater application to each field;
 - (ii) location of the specific LMU and the volume or amount applied during each application event;
 - (iii) acreage of each individual crop on which manure, sludge, or wastewater is applied;

- (iv) assumption for calculating the total amount of nitrogen and phosphorus applied per acre to each field, including sources of nutrients other than waste and on a dry basis, and
 - (v) the percent moisture content of the manure and sludge;
 - (vi) actual annual yield of each harvested crop, and
 - (vii) weather conditions during the land application and 24 hours before and after the land application.
- (2) If manure, sludge, or wastewater is sold or given to other persons for off-site land application or disposal, such records must include the following information. A single pick-up truck load need not be recorded.
- (i) date of removal from the CAFO;
 - (ii) name and address of the recipient; and
 - (iii) amount, in wet tons, dry tons, or cubic yards, of waste or gallons of wastewater or slurry removed from the CAFO.
- (3) The permittee must make the most recent nutrient analysis of the manure, sludge, and wastewater available to any hauler.
- (4) If manure, sludge, or wastewater is being removed by a custom hauler or commercial composter then the records can be updated monthly in accordance with a normal billing cycle.
3. The permittee shall maintain a written description of mortality management practices.
4. Records of weekly inspections of all control facilities and equipment used for land application of manure, sludge, and wastewater shall be updated weekly and include the date of the inspection and a description of the findings.
5. Records pertaining to land application activities must be updated annually to include:
- (a) annual nutrient analysis for at least one representative sample of irrigation wastewater, if applicable, and one representative sample of manure and sludge for total nitrogen, total phosphorus, and total potassium;
 - (b) the annual soil analysis report; and
 - (c) the inspection report required by Part III.A.14(a)(5).

6. The inspection report as required by Part III.A.14(b), Five Year Evaluation, must be updated every five years.
7. The following records shall be kept on-site:
 - (a) a list of any significant spills at the CAFO;
 - (b) documentation of liner maintenance as required in Part III.A.9.(f);
 - (c) groundwater monitoring records, if required by Part III.A.15(b);
 - (d) RCS design and construction certification as required in Part III.A.6(a);
 - (e) embankment certification as required in Part III.A.6(f);
 - (f) liner certification as required in Part III.A.6(g); and
 - (g) a copy of current and amended site plans.

B. Reporting and Notifications

1. CAFOs permitted as TPDES facilities must submit an annual report with all information required in this section to the appropriate TCEQ regional office and the Office of Compliance and Enforcement, Enforcement Division by February 15 of each year (for the reporting period of January 1 to December 31 of the previous year). All other CAFOs must submit items (h)-(j) of this section by same deadline. The report shall be on forms prescribed by the executive director to include, but not limited to:
 - (a) number and type of animals;
 - (b) total manure, sludge, and wastewater generated during the last 12 months by the CAFO facility;
 - (c) total manure, sludge, and wastewater land applied to each LMU during the last 12 months on-site at the CAFO facility;
 - (d) total manure, sludge, and wastewater transferred to other persons from the CAFO facility during the last 12 months;
 - (e) total number of acres for land application covered under the NMP for the CAFO and total number of those acres used in the past 12 months for land application;
 - (f) summary of discharges of manure, sludge, or wastewater from the production area that occurred during the last 12 months including dates, times, and approximate volume;

- (g) a statement that the NMP, under which the CAFO is operating, was developed and certified by a certified nutrient management specialist;
 - (h) groundwater monitoring results, if required by Part III.A.16.(c);
 - (i) the annual soil analysis of each sample collected from the LMUs; as required by this general permit. The analysis shall be accompanied by the reporting forms prescribed by the executive director; and
 - (j) any other relevant information deemed necessary by the executive director.
2. The permittee shall notify the appropriate TCEQ regional office at least 48 hours prior to:
- (a) putting into operation any new or replacement RCS. For purposes of this general permit, "putting into operation" means the RCS commences the receipt of manure, sludge, or wastewater;
 - (b) any change in the number of LMUs; and
 - (c) any new construction or modification of control facilities.
3. The permittee shall provide written notice to the appropriate regional office of the commission as soon as the RCS cleaning is scheduled, but not less than ten days before cleaning. The permittee shall also provide written verification of completion to the same regional office within five days after the cleaning has been completed. This paragraph does not apply to cleaning of solid separators or settling basins. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Any increase in odors associated with a properly managed cleanout under this subsection will be taken into consideration by the executive director when determining compliance with the provisions of this general permit.
4. The permittee that is not required to submit an annual report shall furnish to the appropriate TCEQ regional office and the commission's Office of Compliance and Enforcement, Enforcement Division in Austin, on or before February 15 of each year soil testing analysis of all soil samples collected in accordance with the requirements of this general permit. The analysis shall be accompanied by reporting forms prescribed by the executive director.
5. If, for any reason there is a discharge to water in the state, the permittee shall notify the executive director and appropriate regional office orally within 24 hours and in writing within 14 working days of the discharge from the RCS or any component of the waste handling or land application system. In addition, the permittee shall document the following information to the PPP and submit that information to the appropriate regional office within 14 working days of becoming aware of such discharge:

- (a) A description and cause of the discharge, including a description of the flow path to the receiving water body and an estimation of the volume discharged.
 - (b) The period of discharge, including exact dates and times, and, if not corrected the anticipated time the discharge is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the discharge.
 - (c) If caused by a precipitation event(s), the date(s) of the event(s) and the rainfall amount(s) recorded from an on-site rain gauge.
 - (d) Results of analysis as required by Part III.A.5(c).
6. The permittee shall report any noncompliance, other than B.5 above, which may endanger human health or safety, or the environment to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the TCEQ regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the TCEQ regional office and the Enforcement Division within five (5) working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times. If the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance and to mitigate its adverse effects.

Part V. Standard Permit Conditions.

- A. Authorization to discharge must be obtained prior to the construction of any new CAFO facility as stated in 30 TAC 321.33(d) and (e). This authorization may be obtained through either this general permit or an individual permit.
- B. The permittee has a duty to comply with all conditions in this general permit and 30 TAC Chapter 321; Subchapter B. Failure to comply with any condition is a violation of the general permit and the statutes under which the general permit was issued. Any violation may be grounds for enforcement action, for terminating coverage under this general permit, or for requiring a permittee to apply for and obtain an individual permit.
- C. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted discharge to maintain compliance with the permit conditions.
- D. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by the permittee to achieve compliance with the permit conditions. Proper operation and maintenance also

includes adequate laboratory and process controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the permit conditions.

- E. All records, reports, drawings, and other documentation required by this general permit must be maintained for a minimum period of five years from the date of the record and either be kept on-site or made readily available for review by an authorized representative of the Commission upon request. This period may be extended at the request of the Executive Director.
- F. The permittee shall furnish any information, at the request of the Executive Director, that is necessary to determine whether cause exists for revoking, suspending, or terminating authorization under this permit. The requested information must be provided within a reasonable time frame and in no case later than 30 days from the date of the request.
- G. The permittee shall give notice to the Executive Director before physical alterations or additions to the permitted facility if such changes would result in a violation of permit requirements.
- H. Inspection and entry shall be allowed under TWC, Chapters 26 through 28 and Texas Health and Safety Code §§361.032-361.033 and 361.037 and 40 Code of Federal Regulations §122.41(i). The statement in TWC §26.014 that Commission entry of a regulated entity shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the regulated entity, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.
- I. Standard monitoring requirements
 - 1. Samples required by this permit shall be collected and measurements shall be taken at times and in a manner so as to be representative of the monitored discharge or activity. Samples shall be delivered to the laboratory immediately upon collection, in accordance with any applicable analytical method and required maximum holding time. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests and calculations shall be accurately accomplished in a representative manner.
 - 2. Records of monitoring activities must include:
 - (a) the date, time, and place of sample or measurement;
 - (b) the identity of any individual who collected the sample or made the measurement;
 - (c) the chain-of-custody procedures used to maintain sample integrity from sample collection to laboratory delivery;

- (d) the date and time of laboratory analysis;
 - (e) the identity of the individual and laboratory who performed the analysis;
 - (f) the technique or method of analysis; and
 - (g) the results of the analysis or measurement and for wastewater the quality assurance/quality control records.
3. Chain of custody documents shall be maintained by the permittee or the consultant that collected the samples on behalf of the permittee and must be made available to the executive director upon request.
4. The permittee shall ensure that properly trained and authorized personnel monitor and sample the soil or wastewater related to any permitted activity.
- J. NOIs, NOTs, and NOCs shall be signed in accordance with the requirements of 30 TAC §305.44(a) (relating to Signatories to Applications). Pollution prevention plans, reports, and other information requested or required by the Executive Director shall be signed in accordance with the requirements of 30 TAC §305.128 (relating to Signatories to Reports).
- K. Authorization under this permit may be suspended or revoked for the reasons stated in 30 TAC §205.4 (relating to Authorizations and Notices of Intent). Notifying the TCEQ of planned changes or an anticipated noncompliance, does not stay any permit condition.
- L. This permit does not convey any property rights of any sort or any exclusive privilege.
- M. If the permittee becomes aware that he/she failed to submit any relevant facts in an NOI, or submitted incorrect information in an NOI or in any report to the Executive Director, the permittee shall promptly submit such facts or information.
- N. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Chapter 7 of the Texas Water Code for violations including but not limited to the following:
- 1. violating the TWC Chapter 26 or applicable rules of the Commission or terms of this General Permit;
 - 2. falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; and
 - 3. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.

EXHIBIT B

Commission's Response to Public Comment

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The executive director (ED) of the Texas Commission on Environmental Quality (TCEQ or commission) files this Response to Public Comment (Response) on Concentrated Animal Feeding Operation (CAFO) General Permit Number TXG920000. As required by Texas Water Code (TWC), §26.040(d) and Title 30 Texas Administrative Code (30 TAC) §205.3(e), before a general permit is issued, the ED prepares a response to all timely comments. The Response must be made available to the public and filed with the TCEQ, Office of the Chief Clerk, at least ten days before the commission considers the approval of the general permit. This response addresses all timely received public comments, whether or not withdrawn.

The Office of Chief Clerk received timely comment letters from: Texas Association of Dairyman (TAD), Texas Cattle Feeders Association (TCFA), Texas Farm Bureau (TFB), Texas Pork Producers Association (TPPA), Texas Poultry Federation (TPF), Enviro-Ag Engineering (EAE), Upper Colorado River Authority (UCRA), Mr. Lloyd Crownover, U.S. Department of Agriculture-Natural Resources Conservation Service (NRCS), and U.S. Department of Interior-Fish and Wildlife Service (USFWS).

BACKGROUND

Permit Description

This permit action amends and reissues General Permit Number TXG920000. This general permit authorizes the discharge of manure, sludge, and wastewater from CAFOs under specific circumstances into and adjacent to water in the state. The general permit is applicable to Texas Pollutant Discharge Elimination System (TPDES) and State-only CAFOs statewide, including certain CAFOs in the dairy outreach program area (DOPA). The permit specifies the facilities that may be authorized under this general permit and those which must obtain other authorization.

Authorization under this general permit complies with the TPDES requirements in accordance with the Memorandum of Agreement (MOA) between the U.S. Environmental Protection Agency (EPA) and TCEQ dated September 14, 1998, for the delegation of the National Pollutant Discharge Elimination System (NPDES) program.

Procedural Background

The Notice of availability was published on January 29, 2009, in the *Amarillo Globe News*, *Comanche Chief*, *Hamilton Herald News*, *Nacogdoches Daily Sentinel*, and *Stephenville Empire-Tribune*, on January 31, 2009, in the *Dallas Morning News* and *Gatesville Messenger*, and on February 6, 2009, in the *Texas Register*. In addition, a public meeting was held on March 17, 2009 and public comments were accepted. The comment period ended on March 17, 2009.

Comments and responses are organized by section with general comments first. Some comments resulted in changes to the general permit. The comments resulting in changes are identified in the respective responses. All other comment resulted in no changes. A summary of all changes to the general permit are listed at the end of this document.

COMMENTS AND RESPONSES

General Comments

COMMENT 1:

UCRA states that even a minor amendment to the general conditions, such as the addition of monitoring requirements, results in an applicant being faced with restarting the permitting process from the beginning in seeking an individual permit. UCRA suggests that a mechanism in the existing

rules might be considered to allow an expedited transition from the general permit process to the individual permit process.

RESPONSE 1:

If a facility is required to obtain an individual permit, a permit application must be submitted and processed according to the requirements in 30 TAC Chapters 39, 50, 55, and 305. The public participation component of these rules is in compliance with the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999, and those requirements may not be waived to expedite obtaining an individual CAFO permit.

COMMENT 2:

Mr. Crownover comments that surface water runoff from dairies passes through his property and into Palo Duro Creek. He is concerned about surface water contamination and the safety of local drinking water.

RESPONSE 2:

The general permit contains numerous provisions designed to protect surface water. These protective measures apply to both the production area where the animals are confined and the land application areas where manure, sludge, and wastewater are land applied.

The general permit does not allow the discharge of manure, sludge, or wastewater from a CAFO into or adjacent to surface water in the state, except when chronic or catastrophic rainfall causes an overflow from a retention control structure (RCS) that has been properly designed, constructed, operated, and maintained.

Any swine, veal, or poultry CAFO subject to the new source performance standards in 40 Code of Federal Regulations (CFR) §412.46 must have a RCS designed and constructed to meet or exceed the capacity required to contain runoff and direct precipitation from the 100-year, 24-hour rainfall event. Any other

CAFOs must have a RCS designed and constructed to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event.

Manure, sludge, and wastewater generated by a CAFO must be retained and used in an appropriate and beneficial manner as provided in this general permit and the TCEQ rules. Discharges of wastewater from irrigation areas are prohibited. However, precipitation-related runoff from application areas is allowed by the permit, when consistent with a nutrient management plan (NMP). Land application of manure, sludge, and wastewater must ensure the beneficial use of nutrients by the cover crop, based upon the agronomic rate, and must be based on the total nutrient concentration on a dry weight basis. Vegetative buffer strips shall be maintained between land application areas and water in the state. The minimum buffer must be no less than 100 feet of vegetation, unless wastewater irrigation is applied by low-pressure, low-profile center pivot irrigation systems in areas of the state where the annual average rainfall is less than 25 inches per year. Land application of manure, sludge, and wastewater into surface water in the state is an unauthorized discharge and is prohibited.

COMMENT 3:

Mr. Crownover comments that the area surrounding his property near Stratford, Texas is overstocked already and that no more dairies or feedlots should be allowed.

RESPONSE 3:

The TCEQ's jurisdiction is established by the legislature and is limited to the issues set forth in statute. Accordingly, the TCEQ does not consider CAFO density within a given area; when considering whether to issue a CAFO authorization under the general permit nor can the TCEQ prohibit owners and operators from seeking authorization to operate a CAFO.

COMMENT 4:

USFWS has concerns about the impact of CAFOs and their associated discharges on threatened or endangered species, which may occur adjacent to, and in particular to aquatic species that occur downstream from these facilities. USFWS is also concerned about the impact of CAFOs on USFWS trust lands, such as Buffalo Lake National Wildlife Refuge. USFWS is also concerned about the impacts that pharmaceuticals, such as growth hormones, used on CAFOs could have on threatened or endangered species and USFWS trust lands. USFWS requested a meeting with TCEQ to discuss this issue and best management practices.

RESPONSE 4:

The ED met with USFWS representatives on April 8, 2009. During the meeting, the items in the remainder of this response were discussed.

The EPA is required to adopt regulations in compliance with the Clean Water Act (CWA) and the Endangered Species Act (ESA). By adopting the CAFO rules under 40 CFR §122 and §412, EPA acknowledges that the rules comply with both acts. TCEQ has complied with the MOA with EPA by incorporating the 40 CFR §122 and §412 into TCEQ rules and the general permit, and therefore, meet the requirements of the ESA.

The Texas Surface Water Quality Standards are rules that designate the suitable uses or purposes of the state's water bodies; establish numerical and narrative goals for water quality throughout the state; and provide a basis for TCEQ regulatory programs that can establish reasonable methods to implement and attain the state's goals for water quality. Designated uses include aquatic life use, contact recreation, public water supply, and fish consumption. Texas Surface Water Quality Standards are approved by EPA. The state produces a periodic report, the *Texas Water Quality Inventory and 303(d) List*, which is an overview

of the water quality conditions in comparison to established standards, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources. This document is also approved by EPA. When water quality standards are met, aquatic life is protected. When water quality standards are not met, TCEQ will typically develop a Total Maximum Daily Load (TMDL), which determines the maximum loading of a given pollutant that a waterbody can assimilate while still meeting water quality standards. EPA rules do not establish water quality standards for pharmaceuticals or water quality based effluent limitations related to discharge of pharmaceuticals by CAFOs. Additionally, the best management practices (BMPs) proposed by USFWS have not been evaluated for effectiveness at reducing pharmaceuticals in CAFO discharges or storm water runoff from land application areas.

In the 2003 rulemaking, EPA addressed nutrient impacts to waters of the United States from CAFOs by requiring all CAFOs to develop and implement an NMP. The NMP requirements in the general permit exceeded the 2003 EPA requirements until December 2008, at which time EPA adopted NMP requirements similar to those already established in Texas.

The general permit does not authorize discharges into or adjacent to water in the state, except under chronic or catastrophic rainfall and catastrophic conditions from properly designed, constructed, operated, and maintained RCSs. The design, construction, operation, and maintenance requirements are equivalent to or more stringent than EPA rules (designed by a licensed Texas Professional Engineer, water balance, embankment, and liner). Unauthorized discharges are subject to enforcement action.

The general permit requires soil samples to be collected annually from 0 - 6 inches and 6 - 24 inches. The 0 - 6 inch sample is used to determine the appropriate application rate. The 6 - 24 inch soil sample is used to identify potential impacts during permit actions.

The general permit requires that each RCS be adequately lined to prevent impacts to groundwater from contaminated wastewater. Liners must be designed and constructed to have hydraulic conductivities no greater than 1×10^{-7} centimeters per second (cm/sec), with a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1×10^{-6} cm/sec with the water level at spillway depth.

CAFOs may or may not be the only source of nutrients impacting Buffalo Lake. Non-point sources can contribute to increased nutrient levels in a water body. Buffalo Lake and the watershed upstream from Buffalo Lake are not currently being sampled to determine compliance with water quality standards due to the lack of flow. However, Upper Prairie Dog Town Fork Red River, Segment 0229, which is described as from a point 100 meters upstream of the confluence of Salt Fork Creek in Armstrong County to Lake Tanglewood Dam in Randall County, is sampled. The current CWA §303(d) list identifies a portion of segment 0229 (Palo Duro Canyon State Park upstream boundary to upper end of segment at Tanglewood Dam) as being impaired for pH. The segment is not impaired for bacteria or nutrients.

The general permit requires new and significantly expanding CAFOs to publish notice of the ED's preliminary determination on the Notice of Intent (NOI) and technical application at least once in a newspaper of general circulation in the county in which the CAFO is located or proposed to be located. This notice must provide opportunity for the public to submit comments on the NOI and ED's technical summary. In addition, the notice allows the public to request a public meeting on a new CAFO, which will be held if there is significant public interest. The public comment period begins on the first date the notice is published and ends 30 days later, unless a public meeting is held. The public and USFWS may submit written comments to the TCEQ during the comment period. The ED, after considering public comment,

will approve or deny the NOI based on whether the NOI and technical application meet the requirements of this general permit.

Based on the items, the general permit should be protective of threatened and endangered species and USFWS trust lands, such as Buffalo Lake National Wildlife Refuge.

Part I. Definitions

COMMENT 5:

NRCS recommends adding a definition for "buffer" and "setback" because the current regulations do not clearly distinguish between buffers and setbacks. This causes some confusion, especially where land application is concerned. NRCS recommends revising Part III.A.4.(c)(1), (2) and (5) to substitute the term "setback" or "setback zones" everywhere the term "buffer" is mentioned to avoid confusion between the two.

RESPONSE 5:

The terminology used in the general permit to protect wells and waters in the state contain adequate descriptions, so additional definitions are not needed. The term used to identify how far land application areas have to be from water in the state is called the "vegetative buffer zone." The term used in the general permit to identify how far land application areas, pens, and RCSs have to be from water wells is called the "buffer zone." The buffer zone areas do not have to be vegetated.

COMMENT 6:

NRCS requests clarification on why chronic or catastrophic rainfall events are not included in the definition of catastrophic conditions.

RESPONSE 6:

The general permit defines chronic or catastrophic rainfall event as: "a series of rainfall events that do not provide opportunity for dewatering a retention control structure and that are equivalent to or greater than the design rainfall event or any single rainfall event that is equivalent to or greater than the design rainfall event." Catastrophic conditions are: "conditions which cause structural or mechanical damage to the AFO from natural events including high winds, tornados, hurricanes, or other natural disasters, other than rainfall events."

The definition of catastrophic conditions excludes rainfall events as catastrophic conditions because the general permit requires RCSs to be designed to contain the runoff and direct precipitation from the design rainfall event. If "other than chronic or catastrophic rainfall events" were added to the definition of catastrophic conditions, rainfall events smaller than the designed rainfall event would meet the definition of catastrophic conditions and would be authorized discharges. This would not meet the effluent limitations established by 40 CFR §412.

COMMENT 7:

TAD, TCFA, TFB, TPPA, and TPF recommend that TCEQ recognize that Certified Crop Advisors serve an integral role in the crop and nutrient management at many CAFOs. They recommend that Certified Crop Advisors be added to the definition of "Certified Nutrient Management Specialists."

RESPONSE 7:

Certified Crop Advisors have a much broader area of expertise, which may or may not include nutrient management. For example, some Certified Crop Advisors specialize in pest management and have limited knowledge of nutrient management. To become a Certified Nutrient Management Specialist, a person is required to take a course in nutrient management and pass a written test to demonstrate their knowledge

and skills related to nutrient management. Requiring a Certified Nutrient Management Specialist to certify NMPs and nutrient utilization plans (NUPs) ensures that an individual is very knowledgeable in nutrient management practices.

COMMENT 8:

NRCS recommends that the definition of "liner" be modified to reflect the difference between an RCS constructed with a liner and one constructed using in-situ material.

RESPONSE 8:

The definition of liner in the general permit is worded so that it applies to in-situ material, a constructed liner, and geosynthetic liners. The requested change is not necessary.

COMMENT 9:

NRCS recommends revising the definition of "nutrient management plans" because the definition needs to include NRCS Practice Standard Code 633 (Waste Utilization) since it works together with NRCS Practice Standard Code 590. NRCS also recommends specifying Texas Standards, which differ from national standards.

RESPONSE 9:

The requirements in NRCS Practice Standard Code 633 are similar to many of the requirements of the general permit. By complying with the requirements of the general permit, a facility meets many of the requirements in NRCS Practice Standard Code 633.

COMMENT 10:

NRCS and EAE recommend revising the definition of "nutrient utilization plan." EAE recommends that the definition of NUP be revised to match Part III.A.13. NRCS recommends the following language:

Nutrient Utilization Plan (NUP) - A nutrient management plan specific to Land Management Units with excessive soil test phosphorus levels. Organic and inorganic phosphorus and nitrogen application rates are based on the amounts removed by harvested crops rather than land grant university approved nutrient recommendations.

RESPONSE 10:

To maintain consistency within the rules, the requested change was not made.

COMMENT 11:

NRCS comments that the current definition of the 100-year floodplain does not reflect that flooding must be from a water source.

RESPONSE 11:

It is commonly known that floods are caused by the inundation of water. The requested change is not necessary.

COMMENT 12:

NRCS recommends adding a definition for phosphorus index because the Texas Nutrient Management Standard uses the Phosphorus Index as the principal tool to determine the amount of agricultural waste that can be applied to the land.

RESPONSE 12:

The term phosphorus index is used only once in the general permit. The commission declines to add a definition of phosphorus index, but in response to the comment agrees to add the following sentence to Part III.A.11(e)(3)(a): "The phosphorus index rating must be calculated using the NRCS Phosphorus Assessment Tool for Texas, Agronomy Technical Note Number 15, as amended."

COMMENT 13:

EAE states that the definition of "significant expansion" is confusing and recommends that the phrase "any change" needs to be reworded to indicate that once the 50% increase in waste production is exceeded, then it qualifies as a significant expansion. Another alternative would be to make this clear in the definition of "notice of change" (NOC).

RESPONSE 13:

Significant expansions are subject to the public participation process as outlined in Part II.C.2. of the general permit, whereas NOCs are not subject to public participation. Part (a) allows facilities to increase waste production up to 49% of the initial authorization through the NOC process; only requiring public participation for increases at or above 50%. Part (b) requires any change that increases waste production after five years from the date of authorization for a facility to be subject to the public participation requirements for significant expansions, regardless of whether the facility has utilized the 49% increase allowed through the NOC process in Part (a).

Rather than make this time limit retroactive for facilities authorized prior to the effective date of the general permit, (b)(2) gives these facilities a deadline of July 20, 2014, to utilize the NOC process to increase waste production up to 49% of the initial authorization in accordance with Part (a) of the definition, if they have not done so already.

Once a facility has utilized the 49% increase through the NOC process as described in Part (a) or the time limit in Part (b) has lapsed, any increase in waste production will meet the definition of significant expansion triggering the public participation requirements in Part II.C.2 of the general permit.

COMMENT 14:

NRCS suggest the following minor change to the definition of sludge, ". . . 30 TAC §312 rules pertaining to municipal and industrial sludge do not apply to this permit."

RESPONSE 14:

As currently written, none of the requirements in 30 TAC §312 apply to the general permit. The recommendation by the commenter could potentially allow portions of 30 TAC §312 rules to apply to the general permit. The commission declines to make this change.

COMMENT 15:

EAE comments that there is some confusion in the definition of "slurry" regarding material that is between 2% and 3%, since less than 2% is considered wastewater and greater than 3% is considered slurry.

RESPONSE 15:

The word "slurry" is not used in the general permit. Therefore, a definition is not necessary. In response to the comment, the definition of "slurry" was deleted.

Part II. Permit Applicability and Coverage

COMMENT 16:

Part II.C.3. EAE states that estimated land application rates should be removed from the NOI. Each facility is required to have an NMP that includes the estimated application rates, which will change from

year to year based on yearly sampling of land management units (LMUs). Providing this value on the NOI only gives a representation of the year/plan at the time the NOI was submitted and becomes invalid when the NMP is updated.

RESPONSE 16:

The NOI is a summary of the technical data that supports the ability of the facility to meet the general permit. This gives the public an understanding of what the land application rates may be, without having to be able to read and interpret the NMP. The Technical Summary for each draft authorization under the general permit states that the land application rates are subject to change during the term of the permit.

COMMENT 17:

NRCS recommends that the NOI include the estimated acres needed to apply manure, litter, or wastewater at the phosphorus removal rate of the harvested crops using the crop parameters in the current NMP. NRCS states that this information is needed to determine resource sustainability. Without this information, many permitted operations eventually get into situations where they cannot apply wastes at agronomic rates due to insufficient land base.

RESPONSE 17:

The general permit requires that manure, sludge, and wastewater must be applied at agronomic rates and hydrologic needs. In the event that the CAFO operator cannot land apply all of the manure, sludge, or wastewater generated, they must export any remaining amount or find an alternative use for the material.

Long term sustainability of a facility may be a planning consideration, but there are no rule requirements that a facility be sustainable for the permit term.

COMMENT 18:

Part II.C.7. TAD, TCFA, TFB, TPPA, and TPF recommend that TCEQ allow transfer of a general permit authorization from one owner to another owner without submission of a Notice of Termination (NOT) and new NOI. EAE states that for a change of ownership, the statement "not later than 10 days prior" is not practical in cases where a business/real estate transaction has not yet closed. EAE states that a CAFO operator is not going to be willing to terminate their authorization prior to the real estate closing in case the deal does not go through. EAE recommends that Part II. C. 7. should read ". . . not later than 10 days after."

RESPONSE 19:

General permits issued by the commission must comply with 30 TAC Chapter 205 (related to General Permits for Waste Discharges) and those rules do not allow transfer of a general permit authorization. 30 TAC §205.4(h) states:

. . . In cases where the general permit requires that an NOI be submitted, the general permit shall require that when the ownership of the facility changes or is transferred, a notice of termination be submitted by the present owner, and a new NOI be submitted by the new owner, no later than ten days prior to the change in ownership.

COMMENT 20:

Part II.G. EAE states that a new CAFO that obtains authorization after 2009 should have the full five years to construct.

RESPONSE 20:

30 TAC §205.4(a) states that a qualified discharger may obtain authorization to operate under a general permit by complying with the general permit's conditions for gaining coverage. Part II.G. does not require that a new CAFO be operated at full capacity within 18 months, just that it be constructed within that time frame. A new CAFO operator should not seek general permit authorization unless he/she intends to construct and operate a CAFO within 18 months of authorization.

Part III. Pollution Prevention Plan Requirements

COMMENT 21:

EAE states that Part III.A.3.(b) should be revised to ". . . preventative measures to *minimize* impacts. . ." because the certifying party cannot certify absolute prevention to adverse impacts of potential recharge features.

RESPONSE 21:

30 TAC §321.34(f)(4) states that the pollution prevention plan (PPP) must prevent impacts to an aquifer from any recharge feature present. The proposed revision would be less stringent than the rule requirement. Therefore, the suggested change was not made.

COMMENT 22:

NRCS recommends revising Part III.A.4.(b) to describe how the CAFO operator identifies areas that have a high potential for soil erosion.

RESPONSE 22:

The general permit requirement should be sufficient to require the CAFO operator to identify areas that have a high potential for significant soil erosion. It is not necessary to prescribe how the CAFO operator identifies these areas.

COMMENT 23:

TAD, TCFA, TFB, TPPA, and TPF state that it is redundant and confusing for Part III.A.4.(c)(2) of the general permit to require: "Documentation supporting variances of the buffer zones which were previously authorized must be kept on-site and made available to TCEQ personnel upon request." They comment that the recharge feature certification serves as "documentation" for the CAFO and TCEQ and recommend deletion of the previous sentence.

RESPONSE 23:

In response to the comment, Part III.A.4.(c)(2) was revised to read: "For new wells drilled after July 20, 2004, documentation supporting variances of the buffer zones which were previously authorized must be kept on-site and made available to TCEQ personnel upon request." This clarifies that existing wells drilled before July 20, 2004, and any replacement wells, must be protected in accordance with the recharge feature certification requirements which serves as documentation and a separate variance request is not necessary. The language also clarifies that new wells drilled after July 20, 2004, must meet the requirements of the recharge feature certification and a variance request is submitted to the TCEQ if the buffer zone is not met.

In addition, the changes to this section in conjunction with the requirements in Part III.A.4.(c)(5), provides assurance that only new water wells that do not meet the buffer zone from RCSs, LMUs, or holding pens are required to initiate a buffer variance request. Buffer variance requests are also required for new LMUs, where existing water wells are in use and do not meet the buffer zone.

COMMENT 24:

EAE recommends deleting Part III.A.4.(c)(3) because it is in conflict with 16 TAC §76.300(1), Exemptions.

RESPONSE 24:

The commission agrees that the general permit should defer water well drilling requirements to 16 TAC §76. In response to this comment Part III.A.4.(c)(3) was revised as follows: "Construction of any new water well must be done in accordance with the requirements of this general permit and 16 TAC §76, relating to Water Well Drillers and Water Well Pump Installers."

COMMENT 25:

TAD, TCFA, TFB, TPPA, and TPF comment that Part III.A.5.(c) of the draft permit, as written, would require wastewater discharges to be sampled and analyzed by a person employed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab. They recommend that the word "sampled" be removed from the sentence. They also note that TCEQ should recognize that not all monitoring parameters have been accredited by NELAC.

RESPONSE 25:

In response to the comment, Part III.A.5.(c) was revised as follows: "The permittee shall sample all discharges to surface water in the state from RCSs and LMUs. The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab for the following parameters. . . ."

COMMENT 26:

TAD, TCFA, TFB, TPPA, and TPF recommend that TCEQ add language that would clarify the requirements for discharges that occur outside of normal business hours. They suggest adding the following sentence to Part III.A.5(d):

In cases where the CAFO operator is required to collect a wastewater discharge sample outside of normal business hours, the samples shall be preserved and stored as required for each parameter and delivered to the laboratory on the next business day.

RESPONSE 26:

It is true that discharges may occur outside of the normal laboratory business hours, which could cause a sample to exceed the maximum hold times required for a given test method. In response to this comment, the following sentence was added to Part III.A.5(d):

In the event that a discharge occurs outside of the normal business hours of the testing laboratory which causes the maximum hold time to lapse, the permittee shall collect a secondary sample from the RCS, in addition to the sample collected in accordance with Part III.A.5(c), and have it analyzed on the first business day for each parameter in which the maximum hold time has been exceeded.

COMMENT 27:

EAE states that for all new construction, the RCS design is based on the designed confinement area and head count (number of animals) at the time of construction, not necessarily the maximum authorized head count.

RESPONSE 27:

A discharge is authorized under certain circumstances from a properly designed, constructed, operated, and maintained RCS. The RCS must be capable of receiving waste generated by the maximum authorized head count, including the confinement area. The engineering design provides the minimum required volume of the RCS(s) to prevent an unauthorized discharge when the maximum authorized head count is

present at the facility. In the event that the maximum authorized head count is increased, the RCS(s) must be enlarged to accommodate the waste produced by the additional animals prior to confining additional animals at the facility.

COMMENT 28:

EAE states that the design of a pond should contain "wet" manure and process generated wastewater. They recommend that the word "all" should be removed from Part III.A.6.(d)(2).

RESPONSE 28:

The RCS must be designed for any and all manure directed to it, regardless of whether it is wet or dry. In the event that dry manure is scraped into the RCS, the minimum required volume of the RCS must account for the storage of the manure to prevent an unauthorized discharge.

COMMENT 29:

NRCS comments that Part III.A.6(f) related to Embankment Design and Construction does not include any requirements for the design of the facility. NRCS recommends that the following language be included in Part III.A.6(f): "Embankment Design - Embankments shall be designed in accordance with good engineering practices. The design shall be certified by a licensed Texas professional engineer or NRCS engineer."

RESPONSE 29:

Part III.A.6(a) requires that all design and completed construction must be certified by a licensed Texas professional engineer prior to use for a new RCS or for modifications of an existing RCS. Part III.A.6(b) requires that each RCS be designed and constructed in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil

Engineers, American Society of Testing Materials, or other technical standards approved by the ED that are in effect at the time of construction. Both of these provisions of the general permit apply to RCS design and construction, including embankments.

COMMENT 30:

NRCS suggests adding the following sentence to Part III.A.6(f)(1): "Soils shall be suitable for the type of construction."

RESPONSE 30:

Part III.A.6(f)(1) and (2) describes soil requirements and the compaction requirements for the embankment. If a soil meets the soil requirements and is able to achieve the compaction requirement, it is suitable for use as an embankment material.

COMMENT 31:

NRCS recommends revising Part III.A.6(f)(5) to clarify the spillway design requirement and avoid confusion by reference to vague standards.

RESPONSE 31:

There are multiple considerations that go into the design of a spillway, including discharge prohibitions, dam safety, topography, site specific conditions, etc. While all of these considerations may not be found in a single NRCS practice standard, NRCS has design criteria for each of these considerations. It is not necessary to identify each NRCS technical guidance document in the general permit.

COMMENT 32:

NRCS recommends revising Part III.A.6(f)(6) to clarify the measured depths and provide adequate embankment protections. NRCS recommends the following language:

. . . and the structure's spillway crest. There must be a minimum of one vertical foot of materials between the top of the embankment and the design flow depth of the spillway in accordance with the requirements in (5). RCSs without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity.

RESPONSE 32:

The general permit mirrors the requirements in 30 TAC §321.38(g)(2), which requires that for all new construction and for all structural modifications of existing RCSs, each RCS must have a minimum of two vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCSs without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity, including any additional storage required by an alternative standard. Therefore, the requirements in the rule and general permit should be adequate.

COMMENT 33:

NRCS recommends that the embankment construction documentation include copies of construction certifications to show that it meets the applicable requirements and is in accordance with good engineering practices.

RESPONSE 33:

Part III.A.6(f) provides sufficient requirements for the design, construction, and testing of embankments to ensure that these structures are structurally acceptable and will protect the environment from dam failure.

COMMENT 34:

NRCS recommends that Part III.A.6(g) be retitled to "Seepage Limitations and Lining Requirements." Additionally, NRCS recommends revising the first paragraph to clarify that the RCSs must meet the lack of hydrologic connection criteria or meet the seepage limitation criteria.

RESPONSE 34:

The commission partially agrees with this comment. Part III.A.6(g) was revised to note that a lack of hydrologic connection is not necessarily a liner. The provision now reads as follows:

For all new construction and for all structural modifications of existing RCSs only, each RCS must meet the requirements for lack of hydrologic connection or have a liner consistent with paragraph (2), (3), or (4) below.

No change was made to the title of Part III.A.6(g).

COMMENT 35:

EAE recommends deleting the phrase "tested at optimum moisture content" in Part III.A.6.(g)(1)(i). EAE notes that this test cannot be performed on in-situ materials. The permeability can only be tested at the moisture content of the in-situ soils.

RESPONSE 35:

In response to the comment, the phrase "tested at optimum moisture content" in Part III.A.6.(g)(1)(i) was deleted.

COMMENT 36:

EAE recommends that the statement that the CAFO operator should include maps showing groundwater flow paths or that the leakage enters a confined environment should be removed from Part III.A.6.(g)(1)(ii). EAE comments that this should be at the discretion of the certifying engineer whether to include this documentation with the certification. Lack of hydrologic connection means no connection to groundwater, so maps are not necessary.

RESPONSE 36:

The documentation provides support for the findings of the professional engineer or geoscientist. Submittal of this information allows TCEQ and the public the opportunity to review the documentation and make an independent determination of the lack of hydrologic connection.

COMMENT 37:

NRCS suggests that the seepage limitations (specific discharge requirements) be moved to its own section. The liners or in-situ materials must be adequate to meet these limitations. NRCS proposes the following language:

Seepage Limitations. All RCSs constructed after July 2009 shall be designed and constructed with a specific discharge not to exceed 1.1×10^{-6} cm/sec calculated using Darcy's law. The depth used in Darcy's law shall be from the bottom elevation of the RCS and the crest of the spillway. A licensed Texas professional engineer or licensed Texas professional geoscientist shall provide a certification of the calculated specific discharge using the constructed parameters and laboratory results.

RESPONSE 37:

The commission partially agrees with this comment. However, the commission prefers to keep the specific discharge and hydraulic conductivity requirements together because they work in concert with each other to protect groundwater. In response to the comment, Part III.A.6(g)(3)(ii) was revised as follows:

Liners shall be designed and constructed to have hydraulic conductivities no greater than 1×10^{-7} centimeters per second (cm/sec), with a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1×10^{-6} cm/sec calculated using Darcy's Law with a water level at spillway depth.

COMMENT 38:

NRCS suggests including the hydraulic conductivity requirements for in-situ materials in Part III.A.6(g)(2) to avoid potential confusion with cross-references.

RESPONSE 38:

Cross-references are used to avoid excessive duplication. No change was made in response to the comment.

COMMENT 39:

NRCS suggests revising the title of Part III.A.6(g)(2) and (3).

RESPONSE 39:

In response to the comment, the title of Part III.A.6(g)(2) was revised to: "RCS Liner using In-Situ Material" and the title of Part III.A.6(g)(3) to: "Constructed or Installed Earthen Liner."

COMMENT 40:

NRCS recommends that all of the requirements for geosynthetic liners be placed in the same location to avoid confusion.

RESPONSE 40:

In response to the comment, Part III.A.6(g)(3)(iv) and Part III.A.6(g)(4)(iv) were combined as Part III.A.6(g)(4) and subsequent paragraphs were re-numbered.

COMMENT 41:

NRCS suggests clarification that the liner sampling requirements apply to in-situ material or earthen liners, but do not apply to geosynthetic liners.

RESPONSE 41:

The commission agrees that liner sampling requirements in Part III.A.6(g)(4)(i) - (iii) do not apply to geosynthetic liners. In addition to the changes noted in Response 40, the title of Part III.A.6(g)(4) was revised to: "Liner Sampling and Analyses of In-Situ Material or Earthen Liners."

COMMENT 42:

Relating to Part III.A.8(a), Manure Handling and Storage, NRCS recommends the use of site-specific data where it is available. Land availability is not a direct factor in determining the capacity requirements. Additionally, the Field Office Technical Guide does not include manure production values. NRCS recommends that this paragraph be revised as follows:

Manure and sludge storage capacity requirements shall be based on manure and sludge production values from site specific data where available or in the absence of such data values may be obtained from the NRCS Agricultural Waste Management Field Handbook or equivalent standards.

RESPONSE 42:

Land availability can play a role in manure storage capacity. If sufficient land is not available to apply the manure and sludge, it may have to be stored until determination of an alternative final disposition. The ED agrees that this provision of the general permit should not refer to the NRCS Field Office Technical Guide. Part III.A.8(a) was revised as follows: "Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability and NRCS or equivalent standards."

COMMENT 43:

NRCS recommends allowing the storage of manure or sludge outside of the RCS if the storage area has a minimum of 150 feet of vegetative material down gradient to protect water in the state.

RESPONSE 43:

The general permit allows storage of manure outside of the RCS drainage area if it is stored in a manner (i.e., storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from the storage area. This provision complies with 30 TAC §321.38(h).

COMMENT 44:

TAD, TCFA, TFB, TPPA, and TPF note that it is acceptable for wastewater levels in the RCS to encroach on the volume reserved for the design rainfall event. They state that TCEQ should recognize that it is only necessary to document/record/justify those non-precipitation related incidents that elevate the water level

in the RCS. They recommend that the second sentence of Part III.A.9.(a)(2) be revised to read: "If the water level in the RCS encroaches into the storage volume reserved for the design rainfall event (25-year or 100-year), for reasons other than precipitation, the pollution prevention plan must. . ."

RESPONSE 44:

The general permit complies with 30 TAC §321.39(b)(2), which requires the operator to document conditions that result in the wastewater levels encroaching into the storage volume reserved for the design rainfall event. Neither the rules nor the general permit exclude precipitation related encroachments from the recordkeeping requirement.

COMMENT 45:

TAD, TCFA, TFB, TPPA, and TPF recommend that the general permit address collection and disposition of carcasses associated with a catastrophic event. They suggest adding the following sentence to Part III.A.10.(c): "In the event of a catastrophic loss of animals, carcasses will be collected and disposed of within a timeframe and method(s) as approved by the TCEQ and Texas Animal Health Commission."

RESPONSE 45:

The flexibility requested is already provided in the general permit because the commission can approve alternative plans for carcass collection and disposal. The general permit requires carcasses to be collected within 24 hours of death and properly disposed of within three days of death, *unless otherwise provided for by the commission*. In the event of a catastrophic loss of animals, the CAFO operator should notify their TCEQ regional office to coordinate the proper collection and disposal of the carcasses. It is recommended that each CAFO develop a plan for catastrophic loss of animals, in coordination with the applicable TCEQ regional office and the Texas Animal Health Commission, prior to such an event occurring.

COMMENT 46:

NRCS recommends revising Part III.A.11(a) as follows:

A NMP, developed by a certified Nutrient Management Specialist, must be in accordance with the Texas NRCS Nutrient Management Conservation Practice Standard (Code 590) and the Texas NRCS Waste Utilization Conservation Practice Standard (Code 633). In addition to the NRCS Conservation practices, the following general requirements must be met.

RESPONSE 46:

The general permit mirrors the CAFO rule relating to who can certify a NUP in 30 TAC §321.40(k)(3). These same individuals and entities should be allowed to certify a NMP. To clarify who can certify a NMP, Part III.A.11(a) was revised as follows:

A permittee of a Large CAFO must develop and implement a NMP, certified by an individual or employee of an entity identified in Part III.A.13(b), in accordance with Texas NRCS Practice Standard Code 590 upon coverage under this general permit. The NMP shall be updated annually to incorporate the most recent manure, sludge, wastewater, and soil analyses.

COMMENT 47:

NRCS states that Part III.A.11 should rely on the "Plans and Specs" section of Code 590 for most of these requirements (Code 633 defers to Code 590 for plans and specifications). NRCS states that it is redundant here because these things and more are required by Code 590 and notes that Paragraph 4 explains waste sampling. NCRS recommends adopting the 590 procedure because it is newer and provides better technology.

RESPONSE 47:

Part III.A.11 incorporates requirements found in 30 TAC Chapter 321, Subchapter B. While the rule and general permit requirements are reiterated in NRCS Practice Standard Code 590, it is not appropriate to delete them from the general permit.

COMMENT 48:

TAD, TCFA, TFB, TPPA, and TPF state that manure and wastewater are managed on an as-collected basis (wet basis). They recommend that Part III.A.11.(b)(3) be revised by replacing the phrase "on a dry weight basis" with "based on laboratory analysis that accounts for moisture."

RESPONSE 48:

The commission agrees that wastewater is not analyzed on a dry weight basis. In response to this comment, Part III.A.11.(b)(3) was revised as follows: ". . . Land application rates of manure, sludge and/or wastewaters shall be based on the total nutrient concentration, on a dry weight basis where applicable."

COMMENT 49:

TAD, TCFA, TFB, TPPA, and TPF state that many low-lying areas were converted to farmland many years ago and continue to be used for farmland today. They encourage TCEQ to recognize that many of these farmed areas should not be classified as surface water in the state. They recommend that the phrase: ". . . unless previously converted and used for agricultural production" be added to the last sentence of Part III.A.11(e)(1).

RESPONSE 49:

Determining whether or not a waterway meets the definition of surface water in the state should be made on a case-by-case basis. The ED has and will continue to review documentation presented by applicants showing that questionable areas do not meet the definition of water in the state.

COMMENT 50:

EAE recommends that Part III.A.11.(e)(3)(b)(i) should be deleted and only (e)(3)(b)(ii) should be included in the permit.

RESPONSE 50:

Part III.A.11.(e)(3)(b)(i) allows for an alternative to the filter strip or vegetative barrier requirements of (ii).

There may be areas of the state that it is impractical to construct and/or maintain the filter strip or vegetative barrier.

COMMENT 51:

NRCS recommends revising Part III.A.12.(a)(2) by replacing the phrase "at least one representative soil sample" with "representative soil samples" and adding the following sentence: "The number of composite samples per LMU and the approved sampling methods are described in Part III.A.12.(c)(3)." The number of composite samples is discussed in paragraph (c) sampling procedures.

There have been too many PPP's that collect one sample per LMU and ignore Part III.A.12.(c)(3).

RESPONSE 51:

The primary purpose of Part III.A.12.(a) and (b) is to identify sampling frequency, both initial and annual.

Part III.A.12.(c) provides the procedures for collecting samples. As noted by the commenter, the number of samples to collect is identified in Part III.A.12.(c)(3). Failure to collect the required number of samples is a violation of the permit.

COMMENT 52:

EAE recommends replacing RG-408 "Soil Sampling for NUPs" with "Most recent version of RG-408" in Part III.A.12.(c)(1).

RESPONSE 52:

In response to the comment, the title of RG-408 was revised to "Soil Sampling for Concentrated Animal Feeding Operations."

COMMENT 53:

NRCS states that the general permit or a regulatory guidance document should explain what will be done with the 0 - 2 inch and 6 - 24 inch samples required by Part III.A.12.(c)(4). The 0 - 2 inch samples could be used to identify stratification issues (pH, Nitrogen, Phosphorus, and Calcium) and the 6 - 24 inch samples could be used for partial Nitrogen budgeting and determining if phosphorus is leaching into deeper profiles.

RESPONSE 53:

The 0 - 2 inch soil sample is used to identify the nutrient content of the soil that is exposed to surface runoff allowing re-suspension of nutrients from the soil into the runoff which may increase pollutant loading to water in the state. The 6 - 24 inch soil sample is used to identify potential impacts during permit actions. It is not necessary to identify the uses of the data in the general permit.

COMMENT 54:

NRCS states that Part III.A.13. can be eliminated, except (b), which identifies who can certify a NUP. NRCS notes that NUP's are more restrictive NMP's.

RESPONSE 54:

Part III.A.13. is necessary for the following reasons: To identify when a NUP is required, identify who can certify a NUP, require submittal to and approval by the ED, define when land application under the NUP can commence, and detail what must be included in the NUP.

COMMENT 55:

NRCS recommends revising Part III.A.13.(b) to only allow Texas certified nutrient management specialists to certify a NUP. To become certified, a person must demonstrate technical competency as well as an understanding of all the different policies that must be followed. NRCS does not support allowing certified professional agronomist, certified crop advisors, certified professional soil scientists, or other licensed geoscientist-soil scientist to develop NMPs without going through the certification process.

RESPONSE 55:

30 TAC §321.40(k)(3) identifies who can certify a NUP. The general permit mirrors the rule.

COMMENT 56:

TAD, TCFA, TFB, TPPA, and TPF state that TCEQ recognizes the option for meeting the daily inspection of water lines requirement by recording this information in the Weekly Report. They recommend the addition of a sentence to Part III.A.14.(a)(2) to read: "The Weekly Report can be used to document activities associated with daily inspections of water lines."

RESPONSE 56:

The commission agrees that daily inspections of water lines can be recorded on the PPP either daily or weekly. Based on this comment, the following sentence was added to Part III.A.14.(a)(2): "These daily inspections can be recorded in the PPP either daily or in the weekly report."

COMMENT 57:

TAD, TCFA, TFB, TPPA, and TPF state that Part III.A.15.(b)(4) should be written in a manner that is similar to the current CAFO General Permit. One subsection should pertain to Groundwater Monitoring Plans for CAFOs that utilize playas and one subsection should pertain to Groundwater Monitoring Plans required by the ED. As proposed, this new language would require Groundwater Monitoring Plans for CAFOs that utilize playas to have those plans developed and certified by a licensed Texas professional engineer or licensed Texas professional geoscientist. TWC does not require this for CAFOs utilizing playas.

RESPONSE 57:

In response to the comment, the following changes were made. Part III.A.15(b)(1) was revised as follows:

"(1) A groundwater monitoring plan shall be implemented by a permittee if: (i) a playa is used as a RCS, as required by Texas Water Code §26.048, or (ii) if required by the executive director."

Part III.A.15(b)(2)(ii) was revised as follows: "having each sample analyzed for nitrate as nitrogen and chloride where a groundwater monitoring plan is required by (b)(1)(i), and for nitrate as nitrogen, total dissolved solids, and chloride, where a groundwater monitoring plan is required by (b)(1)(ii), and. . ."

Also, Part III.A.15(b)(4) was revised as follows: "A groundwater monitoring plan required by (b)(1)(ii) shall be developed and certified by a licensed Texas professional engineer or licensed Texas professional geoscientist."

COMMENT 58:

Part III.B. NRCS believes that on-site composting is extremely beneficial for reducing pathogens and stabilizing manures. NRCS would like the general permit to allow for composting at locations associated with the CAFO that are not within the drainage basins of an RCS when a properly sized vegetative buffer is established and maintained down gradient from the composting operation.

RESPONSE 58:

The general permit allows composting outside of the RCS drainage area if it roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff. This provision complies with 30 TAC §321.39(f).