DOCKET NO. 2009-0680-AGR

Application by Cottonwood Auction Barn, LLC's application to renew TPDES Permit No. WQ0004136000	**§**	**BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUESTS

I. Introduction

The Executive Director (ED) of the Texas Commission on Environmental Quality (the TCEQ or Commission) files this Response to Hearing Request (Response) on the application by Cottonwood Auction Barn, LLC (Applicant) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit Number WQ0004136000. Two hearing requests were received from: Eric Allmon on behalf of Dr. Pritchy Smith and Parc Smith.

A copy of the draft permit, a current compliance history report prepared by the Executive Director's staff, the Executive Director's Response to Public Comment (RTC), a map of the facility, the adjacent landowners list and map, and the Fact Sheet and ED's Preliminary Decision have been filed with this Response as Exhibits A through F respectively. Copies were also provided to all parties. The RTC was previously mailed by the Office of the Chief Clerk to all persons on the mailing list.

II. Description of the Facility

The Applicant has applied to the TCEQ to renew its TPDES Permit to authorize the operation of an existing Concentrated Animal Feeding Operation (CAFO) at a maximum capacity of 1,800 head. The facility is located on the south side of State Highway 6, approximately 4.2 miles east of the intersection of Farm-to-Market Road 219 and State Highway 6 in Dublin, Erath County, Texas. The facility is located in the drainage are of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

III. Procedural Background

The renewal application was received on June 1, 2005 and declared administratively complete on August 5, 2005. The Notice of Receipt and Intent to Obtain a Water Quality Permit was published on August 9, 2005 in the *Stephenville Empire Tribune*. The new CAFO rules were approved in July, 2004. The new rules resulted in revisions to the CAFO permit application process and revisions in the required engineering and technical data. TCEQ staff completed a technical review of the application and prepared a draft permit. The Notice of Application and Preliminary Decision for a Water Quality Permit was published on August 27, 2008 in the *Stephenville Empire Tribune*. The public comment period ended on September 26, 2008. This

application is subject to the procedural requirements adopted pursuant to House Bill 801 (76th Legislature, 1999).

IV. Evaluation Process for Hearing Requests

The regulations governing requests for contested case hearings are found at Title 30 of the Texas Administrative Code (TAC) Chapter 55. 30 TAC §§ 55.201(c) and (d) require that a request for a contested case hearing must comply with the following:

1) be in writing;
2) be timely filed;
3) request a contested case hearing;
4) give the name, address, daytime telephone number, and, where possible, fax number of the person who files the request;
5) provide any other information specified in the public notice of application; and
6) raise disputed issues.

There are certain instances where there is no right to a contested case hearing. 30 TAC § 55.201(i) sets out those situations.

In addition to requesting a contested case hearing, a person must be an "affected person" as defined in 30 TAC § 55.203(a). The rule defines an affected person as "one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest.

In making an "affected person" determination, 30 TAC § 55.203(c) lists factors to consider, including:

1) whether the interest claimed is one protected by the law under which the application will be considered;
2) distance restrictions or other limitations imposed by law on the affected interest;
3) whether a reasonable relationship exists between the interest claimed and the activity regulated;
4) the likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;
5) the likely impact of the regulated activity on use of the impacted natural resource by the person; and
6) for governmental entities, their statutory authority over or interest in the issues relevant to the application.

If the Commission determines that the hearing request is timely and that the requestor is an affected person, the Commission applies the following test from 30 TAC § 55.211(b) to the issues raised to determine if any of the issues should be referred to the State Office of Administrative Hearings (SOAH) for a contested case hearing:

1) does the issue involve questions of fact, not questions strictly of law or policy;
2) was it raised during the public comment period;
3) was it withdrawn; and
4) is it relevant and material to the Commission's decision on the application.

V. Analysis of the Requests

A. Whether the Requestor Complied with 30 TAC §§ 55.201(c) and (d)?

As stated above, there are two hearing requestors, Dr. Pritchy Smith and Parc Smith. Their requests were submitted in writing, were timely, requested a contested case hearing, and included the name, address, and daytime telephone number of the person filing the request. The requests referenced the permit number, and they identified disputed issues of concern.

The ED concludes that the hearing requests filed by Dr. Pritchy Smith and Parc Smith substantially complied with 30 TAC §§ 55.201(c) and (d).

B. Whether the Requestor Met Requirements of an Affected Person?

1. Dr. Pritchy Smith

According to his multiple hearing requests, Dr. Smith owns property adjacent to the facility. He notes that RCS #1 is located just over 500 feet from the residence located on the property. Dr. Smith also notes that there is a water well on his property located less than 1,000 feet from RCS #1. Also, Dr. Smith appears on the Applicant's adjacent landowner map as Property Number 2. *See* Exhibit E. Based on his proximity to the dairy operation and his water quality and odor concerns, Dr. Smith has a personal justiciable interest not in common with the general public.

The ED recommends finding that Dr. Pritchy Smith is an affected person.

2. Parc Smith

According to his hearing request, Parc Smith requests a contested case hearing based on a recreational interest in the same piece of property owned by Dr. Smith. No ownership interest in the property by Mr. Smith was indicated. The request notes that Mr. Smith regularly engages in recreational activity on the property including hiking, camping, and fishing. However, Mr. Smith neither owns the property in question nor resides on it. The request does not state where Mr. Smith lives in relation to the facility. Based on the interests articulated in the request, Mr. Smith's interest is similar to any other member of the public who happens to recreate in the same general area of the facility. Therefore, the ED does not recommend finding that Mr. Smith has a personal justiciable interest not in common with other members of the general public.

The ED recommends finding that Parc Smith is not an affected person.

C. Whether there is a right to a contested case hearing?

Under 30 TAC § 55.201(i)(5), there is no right to a contested case hearing for an application under Texas Water Code (TWC), Chapter 26 if:

(A) the applicant is not applying to:
  (i) increase significantly the quantity of waste authorized to be discharged; or
  (ii) change materially the pattern or place of discharge;
(B) the activity to be authorized by the renewal or amended permit will maintain or improve the quality of the waste authorized to be discharged;
(C) any required opportunity for public meeting has been given;
(D) consultation and response to all timely received and significant public comment has been given; and
(E) the applicant's compliance history for the previous five years raises no issues regarding the applicant's ability to comply with a material term of the permit.

This application is to renew a permit under TWC, Chapter 26, and the Applicant is not applying to increase significantly the amount of waste to be discharged or change materially the pattern or place of discharge. The activity to be authorized by the renewal of this permit will maintain the quality of the waste authorized to be discharged. No requests for public meeting on this permit application were received. The ED filed a Response to Comments on the public comments that were received.

The Applicant's compliance history for the past five years has three violations, but the ED does not recommend finding that they rise to the level of impeding the Applicant's ability to comply with a material term of the draft permit. In August, 2005, the Applicant was cited for a minor violation for failure to complete the Dairy Outreach Program Area (DOPA) training.

The Applicant was also cited in October, 2007 for failure to operate under a comprehensive nutrient management plan (CNMP), which is required of all North Bosque watershed dairy CAFOs as of December 31, 2006. Another site investigation in December, 2007 noted that the Applicant was operating under an approved CNMP. Finally, in November, 2007 the Applicant was cited for failure to perform a five-year site evaluation of their structural controls. The Applicant corrected this deficiency and sent a completed site evaluation to TCEQ in May, 2008.

Since those violations the Applicant was investigated on three instances: December, 2007; May, 2008; and October, 2008. In all three instances, TCEQ investigators found no violations, so the facility has had no violations for the past 21 months. Therefore, the ED would not find that the compliance history for the previous five years raises any issues that would interfere with the Applicant's ability to comply with any of the material terms of the draft permit.

The ED recommends finding that there is no right to a contested case hearing for this permit renewal.

D. Whether the Issues Raised are Referable to SOAH for a Contested Case Hearing?

In addition to recommending to the Commission those persons who qualify as affected persons, the ED analyzes issues raised in accordance with the regulatory criteria. The following issues were raised during the comment period and not withdrawn.

1. Whether the draft permit meets applicable odor control requirements? (RTC #1)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

This is an issue of fact. If the draft permit does not comply with the applicable odor control requirements that issue would be relevant and material to a decision on the application.

2. Whether the draft permit meets the CAFO rules at 30 TAC Chapter 321 for calculating runoff from the design rainfall event? (RTC #3)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

This is a question of fact. As noted in the RTC, the ED found no issues with the permit application's calculations for the design size of the RCS to meet the 25-year, 10-day storm event. However, if it could be shown that the calculations and methodology do not meet the CAFO rule requirements, it would be relevant and material to a decision on the application.

3. Whether the RCS liner compaction tests required by the draft permit comply with 30 TAC, Chapter 321? (RTC #15)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

30 TAC § 321.36(e)(3) and Section VII.A.3(b) of the draft permit require that the RCS be designed and constructed in accordance with the technical standards developed by the National Resources Conservation Service (NRCS), American Society of Agricultural Engineers (ASABE), American Society of Civil Engineers (ASCE), or American Society of Testing Materials (ASTM) in effect at the time of construction. Waco requested additional compaction testing requirements be added to the draft permit. Whether the draft permit complies with the applicable compaction testing standards is an issue of fact. If the draft permit is out of compliance with those standards, such information would be relevant and material to a decision on the permit application.

4. Whether the draft permit complies with 30 TAC, Chapter 321 regarding sampling of wastewater and manure? (RTC #20)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

Whether the draft permit complies with the sampling and monitoring requirements at 30 TAC § 321.36(g)(3) is a question of fact. If the draft permit fails to attain consistency with the CAFO rules, that information would be relevant and material to a decision on the permit application.

5. Whether the draft permit is consistent with 30 TAC § 321.42 that incorporates the recommendations in the North Bosque River TMDL Implementation Plan? (RTC #26)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

While TCEQ interpretation of the North Bosque TMDL is an issue of law, whether the draft permit is consistent with 30 TAC § 321.42, which implements the TMDL is an issue of fact. To the extent the draft permit is not factually not consistent with 30 TAC § 321.42, that information would be relevant and material to a decision on the application.

6. Whether the draft permit is in compliance with applicable water quality standards to protect against adverse impacts to water quality downstream of the facility? (RTC #26)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

Whether the draft permit is in compliance with the applicable water quality standards is an issue of fact. If it could be shown that the draft permit did not meet the applicable water quality standards, that information would be relevant and material to a decision on the application.

7. Whether the Applicant's compliance history raises any issues that should be addressed in the draft permit? (RTC #34)

The ED recommends referring this issue to SOAH if there is a contested case hearing.

The ED reviewed the Applicant's compliance history and recommend that the Commission find that there is no right to a contested case hearing in this matter. However, if the Commission finds that the Applicant's compliance history does raise issues whether the Applicant can meet all material terms of the draft permit, then review of the compliance history as an issue at SOAH is recommended.

8. Whether the Applicant has obtained any necessary air permits? (RTC #1)

The ED recommends not referring this issue to SOAH.

This issue is outside the scope of the water quality permitting process.

9. Whether the draft permit overestimates the acreage of the land management unit (LMU) #1? (RTC #4)

The ED recommends not referring this issue to SOAH.

The comment letter filed by the City of Waco stated that the Applicant overstated the size of LMU #1 by three acres. As noted in the RTC, the ED reviewed the size of LMU #1 using ArcView GIS support for purposes of addressing the comment and found that the size of LMU #1 was consistent with the permit application. The requestors do not identify what is still in dispute about this issue. If the information about the size of the LMUs is incorrect, that information would be relevant and material to a decision on the application, but absent additional information, the ED does not recommend referring this issue to SOAH at this time.

10. Whether the draft permit should prohibit placement of any composting area within the drainage area of the retention control structure (RCS)? (RTC #5)

The ED recommends not referring this issue to SOAH.

The site map submitted with the permit application identified a compost area between the Auction Barn and State Highway 6. Since composting will be conducted outside of the drainage area, berms must be constructed to contain any runoff. The permit only authorizes discharges from a properly designed, constructed, operated, and maintained RCS in the event of chronic or catastrophic rainfall events, or catastrophic conditions that cause an overflow. Discharges are not authorized under any circumstances from berms surrounding compost areas.

11. Whether historical waste application fields should be identified in the draft permit? (RTC #6)

The ED recommends not referring this issue to SOAH.

Section VII.A.9(b)(2) of the permit requires the Applicant to have soil samples collected annually for each current and historical LMU. This provision tracks the requirement in 30 TAC §321.42(k) that historical waste application fields must be sampled every year, regardless of whether the Applicant eliminates them from the permit.

Special Provision X.N. in the draft permit requires the Applicant to maintain a map in the pollution prevention plan (PPP) that identifies the location of all historical LMUs and reads as follows: "A LMU map showing historical LMUs shall be maintained in the PPP." Fields no longer associated with the dairy facility (historical LMUs) may be used as third party fields so

long as all third party requirements in TCEQ rules are met. As a matter of law, this issue is not appropriate for adjudication at SOAH.

12. Whether the draft permit should require a stage/storage table prior to issuance? (RTC #7)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules at 30 TAC § 321.42(g) and the draft permit require that the Applicant implement a stage/storage table as part of the RCS management plan and maintain a copy in the PPP. Until the actual expansion and modification of the RCS system is completed and volumes certified, which takes place after the permit is issued, a stage/storage table can not be completed and implemented.

13. Whether the draft permit should require an RCS Management Plan before the permit is issued and before the RCS is modified? (RTC #8)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules at 30 TAC § 321.42(g) and the draft permit require that the Applicant implement an RCS management plan and maintain a copy in the PPP. TCEQ rules do not require review of RCS management plans prior to issuing the permit. This requirement to have a RCS management plan is being implemented through issuance of the permit. *See* 30 TAC § 321.42(a). Until the actual expansion and modification of the RCS system is completed and volumes certified, which takes place after the permit is issued, the RCS management plan cannot be completed and implemented. Therefore, the fact that the Applicant has not produced an RCS management plan prior to permit issuance is not relevant and material to a decision on the application.

14. Whether the design solid removal efficiency assumption for the settling basin contained in the draft permit complies with 30 TAC, Chapter 321? (RTC #9)

The ED recommends not referring this issue to SOAH.

As a matter of law, 30 TAC § 321.38, Control Facility Design Requirements Applicable to CAFOs, does not require a specific solid removal efficiency assumption to be used in calculating the design specifications of an RCS or settling basin.

15. Whether RCS #1 described in the draft permit can currently retain a 25-year, 24-hour precipitation run-off event prior to the enlargement of RCS #1? (RTC #10)

The ED recommends not referring this issue to SOAH.

This is a question of fact. However, the current RCSs volumes are not relevant to what is proposed by this permit application and are not required as part of this permitting process.

Existing RCS volume requirements are contained in the existing authorization and are enforced under that authorization by TCEQ Field Investigators. If the draft permit is issued, the new 25-year, 10-day volume requirements will become effective and construction is required to meet those new requirements within 180 days. Therefore, whether RCS #1 can currently retain a 25-year, 24-hour precipitation event runoff prior to the enlargement is not relevant and material to a decision on the application.

16. Whether the draft permit meets the requirements at 30 TAC § 321.39(c) regarding sludge accumulation? (RTC #12)

The ED recommends not referring this issue to SOAH.

As a matter of law, there is no specific requirement in the CAFO rules regarding how often solids must be removed from a settling basin or RCS. However, 30 TAC § 321.42(c) requires the CAFO operator to maintain a margin of safety in the RCSs to contain the volume of runoff and direct precipitation from a 25-year, 10-day rainfall event. This rule provision must be met, regardless of the requirements in the draft permit. The draft permit requires sludge accumulation to be monitored as needed, but at least annually beginning in year three of the permit.

17. Whether the draft permit should require certification of both total as-built capacity and the remaining capacity as a result of sludge accumulation? (RTC #12)

The ED recommends not referring this issue to SOAH.

As a matter of law, capacity certifications reflect the total as-built capacity. This maximum volume does not change, unless modifications are made to the RCS. Sludge accumulations, on the other hand, fluctuate, just as the wastewater levels fluctuate. Sludge accumulations are required to be monitored and recorded in the PPP, as necessary, but at minimum, within one year of the new capacity certification for the RCS expansion and then annually thereafter.

18. Whether the draft permit should include the conditions for granting an extension to the RCS compliance schedule? (RTC #13)

The ED recommends not referring this issue to SOAH.

As noted in the RTC, conditions that may delay construction of a RCS are numerous and highly variable. The extension request must provide an explanation of the conditions that prevented construction during the specified timeframe. As an issue of fact, it makes no sense to attempt to identify all the specific reasons why the RCS compliance schedule could be delayed. As a matter of law, there are no provisions in the CAFO rules that would require pre-identification of potential issues that would delay the RCS compliance schedule.

19. Whether the draft permit appropriately relies on the current certification of the RCS liner? (RTC #14)

The ED recommends not referring this issue to SOAH.

The liner certification for RCS #1 was completed in July 2000. The rules in place at that time did not require the sample locations to be identified. Neither the rules nor the current permit, issued December 13, 1999, require a minimum number of samples or sample locations. The ED determined that the liner certification for RCS #1 met the applicable rule requirements at the time of certification.

20. Whether the draft permit should require continuous on-site inspection during construction of the RCS? (RTC #15)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules do not require continuous on-site inspection during construction.

21. Whether the descriptions of the structural controls in the draft permit comply with 30 TAC, Chapter 321? (RTC #16)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules do not include any requirement that the description of the structural controls in the permit application and draft permit be any more detailed than what was provided by the Applicant. A Runoff Control Map was submitted that clearly identifies the control features directing run-off. This map shows a thick dashed line identified as the ditch, berm, and underground pipes. The permit requires the Applicant to conduct weekly inspections on all control facilities, including the RCS, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to the RCS; and to annually conduct a complete site inspection of the production area. Additionally, the permit requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years.

22. Whether the draft permit should require approval of the equipment used to dewater the RCS? (RTC #17)

The ED recommends not referring this issue to SOAH.

As a matter of law, TCEQ rules do not require ED review or approval of the equipment an applicant will use to dewater the RCS.

23. Whether 30 TAC §§ 321.46(c)(2) and (e)(2) require the draft permit to require the annual facility inspection report or five year evaluation to be sent to the TCEQ and not just maintained in the pollution prevention plan (PPP)? (RTC #18)

The ED recommends not referring this issue to SOAH.

This is a question of law that questions the interpretation of the rules and thus, is not an issue that is appropriate for SOAH hearing.

24. Whether the draft permit should require that an engineer certify the adequacy of the structural controls in the five year evaluation prior to issuance of the permit or immediately after issuance of the permit? (RTC #19)

The ED recommends not referring this issue to SOAH.

As a matter of law, 30 TAC § 321.46(c)(1) already requires that once every five years, a CAFO operator who uses an RCS must have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner documentation, and "complete and certify a report of their findings."

25. Whether the draft permit properly accounts for the phosphorus generated by the facility according to 30 TAC, Chapter 321? (RTC #21)

The ED recommends not referring this issue to SOAH.

As an issue of law, as long as the phosphorus being land applied or hauled-out is accounted for as required under TCEQ rules, an accounting to reflect what remains in the CAFO production area is not necessary.

26. Whether the draft permit should require that 50% of the waste generated by the facility be managed outside of the North Bosque watershed? (RTC #22)

The ED recommends not referring this issue to SOAH.

As noted in the RTC, the North Bosque TMDL has a *goal* of a 50% reduction in instream loading. The TMDL and TMDL I-Plan address growth of CAFOs through BMPs designed to decrease loading. Neither the TCEQ rules nor the TMDL I-Plan requires a 50% haul-out of collectible manure or management outside the North Bosque watershed.

27. Whether the draft permit should state the date of the most recent nutrient management plan (NMP) that the facility will operate under for the year following permit issuance? (RTC #23)

The ED recommends not referring this issue to SOAH.

As stated in the RTC, the ED addressed this comment by adding the date of the most recent NMP to the fact sheet. Without more information, the ED sees no dispute, and declines to recommend referral of this issue.

28. Whether the draft permit should require the applicant to submit the actual annual yields of harvested crops for both LMUs and third party fields? (RTC #24)

The ED recommends not referring this issue to SOAH.

As a matter of law, record keeping requirements at 30 TAC § 321.46(d)(8)(F) state the actual yield of each harvested crop for LMUs must be recorded on a monthly basis. The information is available to the ED during field investigations. The CAFO rules do not require that this information be submitted to TCEQ. Additionally, there are no rules requiring CAFO operators to track yields on third party fields. 30 TAC § 321.42(j) requires CAFO operators to submit records to the appropriate region office on a quarterly basis that contain the name, locations, and amounts of litter or wastewater transferred to operators of third party fields.

29. Whether the draft permit should be revised to clarify the methods that TCEQ will employ to determine compliance in the absence of any annual harvested yield reporting? (RTC #24)

The ED recommends not referring this issue to SOAH.

Section VIII.A.4 requires the Applicant to update records annually to include actual annual yield of each harvested crop for each LMU. The information is available to the ED during field investigations. Crop removal rates are based on yields when the NMP software is used.

The draft permit allows the Applicant to provide wastewater, sludge and/or manure to third-party fields. The third party field operators must adhere to the contract requirements outlined in the draft permit, which include land application at an agronomic rate based on soil test phosphorus. The draft permit establishes a three tiered approach to application rates on third-party fields. The proposed crop and yield goal are used by the third-party operator to determine the application rates. In the event that the yield goal is not achieved, the soil test results will be higher than expected. If soil test results reach 200 ppm, the Applicant cannot provide wastewater, sludge and/or manure to that third-party field operator. Based on these requirements, the ED disagrees that submitting crops and yields on third-party fields is necessary or required.

30. Whether the draft permit should prohibit waste application onto non-cultivated fields within 500 feet of a stream? (RTC #27)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules do not prohibit land application of waste on non-cultivated fields. Whether a field is cultivated or non-cultivated will impact the uptake of

nutrients and the amount of nutrients that can be applied (less cultivation, less land application), but the CAFO rules do not justify banning the practice.

31. Whether the draft permit should require adherence to NRCS Code 590 on third party fields if it is more restrictive? (RTC #27)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules do not require that land application on third party fields be consistent with the NRCS Practice Code 590. However, the limitations placed in the draft permit assure that application on third party fields will take into account the potential for phosphorus build-up to occur. Land application on third party fields may not exceed a maximum of 200 ppm of phosphorus. When a third party field tests 200 ppm or higher for phosphorus, all land application on that field must cease.

32. Whether the draft permit should require NMPs for third party fields? (RTC #27)

The ED recommends not referring this issue to SOAH.

As a matter of law, the CAFO rules do not require NMPs for third party fields. The application limitations on third party fields are based on soil test phosphorus levels instead of the Phosphorus Risk Index. The restrictions are more conservative than the rules require. Similar to an NMP, as soil phosphorus levels increase on third party fields, the Applicant will have to reduce waste application rates in order to continue land applying on those fields and to prevent those fields from exceeding 200 ppm of phosphorus.

33. Whether the draft permit violates 30 TAC § 321.42(j) by allowing sludge to be applied to third-party fields? (RTC #28)

The ED recommends not referring this issue to SOAH.

30 TAC § 321.32(49) defines sludge as solid, semi-solid, or slurry waste generated during the treatment of or storage of any wastewater. The term includes materials resulting from treatment, coagulation, or sedimentation of waste in a RCS. 30 TAC § 321.32(56) defines waste as manure (feces and urine), litter, bedding, or feedwaste from animal feeding operations. Therefore, sludge is a product of the treatment, coagulation, or sedimentation of its parent materials, waste, and wastewater. More simply, it is modified manure and wastewater. The draft permit incorporates this rationale by explicitly including the term sludge when appropriate.

34. Whether the draft permit should require a demonstration of sustainability of the LMUs for the term of the permit? (RTC #29)

The ED recommends not referring this issue to SOAH.

As a matter of law, there are no rule requirements that LMUs be sustainable for the permit term.

35. Whether the description of the vegetative buffers in the draft permit complies with 30 TAC, Chapter 321. (RTC # 30)

The ED recommends not referring this issue to SOAH.

This is an issue of law. TCEQ rules define the width of vegetative buffers, but not the composition. Vegetative buffers are commonly understood to mean vegetation that reduces shock due to contact. NRCS Practice Code 393 refers to Practice Code 391, *Riparian Forest Buffer*. Riparian forest buffers are areas predominantly in trees or shrubs located adjacent to an up-gradient from watercourses or water bodies. One of the purposes of a riparian forest buffer is to reduce excess amounts of sediments, organic material, nutrients, and pesticides in surface runoff. This purpose is the same as that performed by vegetative filter strips according to NRCS Practice Code 393.

36. Whether the draft permit should define how to measure the vegetative buffers and filter strips, in relation to the stream? (RTC #31)

The ED recommends not referring this issue to SOAH.

As stated in the RTC, the ED agrees with the commenter that the measurement of the vegetative buffers and filter strips should be done from the banks of a stream, not from the center of a stream. Absent additional information, the ED is unable to determine any remaining dispute.

37. Whether the draft permit complies with 30 TAC, Chapter 321 regarding containment from silage, commodity, and hay storage areas? (RTC #32)

The ED recommends not referring this issue to SOAH.

Section X.I. of the draft permit requires that all runoff from silage, commodity, and hay storage outside the RCS drainage area will be contained and that appropriate provisions for that containment be stated in the PPP upon issuance of the permit. The draft permit does not authorize any discharge from the silage, commodity, or hay storage areas located outside the drainage area of the RCS.

38. Whether the draft permit complies with 30 TAC, Chapter 321 and other TCEQ rules regarding control of bacteria and other pathogens? (RTC #33)

The ED recommends not referring this issue to SOAH.

As noted in the RTC, 40 CFR § 122.44(k)(3) allows states to use BMPs to control or abate discharges "when numeric effluent limitations are infeasible." This also applies to bacteria

and other pathogens. In the case of North Bosque dairies, they are only authorized to discharge from an RCS in the event of a chronic or catastrophic rainfall event that exceeds the 25-year, 10-day storm event. The BMPs in place to limit the amount on nutrients applied to the LMUs also limit the amount of bacteria and other pathogens that can be applied. Therefore, bacteria applied to LMUs are limited by the BMPs that limit nutrient application. Additionally, as long as land application follows the BMPs and NMP application rates, runoff from LMUs are considered agricultural non-point source discharges that are not regulated under the draft permit.

As a matter of law, there are no further requirements to impose additional BMPs not already in place or that would be required if the draft permit is issued, to specifically address bacteria separately from nutrients.

VI. Duration for the Contested Case Hearing

The ED recommends that the duration for the contested case hearing, should there be one on this matter, between preliminary hearing on the matter and presentation of a proposal for decision before the Commission, should be nine months.

EXECUTIVE DIRECTOR'S RECOMMENDATION

The ED recommends that the Commission:

1. Find that the hearing requests of Dr. Pritchy Smith and Parc Smith comply with 30 TAC §§ 55.201(c) and (d).

2. Find that there is no right to a contested case hearing under 30 TAC § 55.201(i)(5) on this permit renewal.

3. If the Commission finds there is a right to a contested case hearing, the ED recommends finding that Dr. Pritchy Smith is an affected person under 30 TAC § 55.203(a).

4. If the Commission finds there is a right to a contested case hearing, the ED recommends finding that Parc Smith is not an affected person under 30 TAC § 55.203(a).

5. If the Commission decides to refer this case to SOAH, the ED recommends referring issues #1-#7.

6. If there is a contested case hearing in this matter, the ED recommends a nine month time frame for the SOAH proceeding from the date of the preliminary hearing to a proposal for decision.

Respectfully submitted,
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

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ATTORNEY FOR
THE EXECUTIVE DIRECTOR

CERTIFICATE OF SERVICE

I certify that on July 14, 2009, the original and seven copies of the "Executive Director's Response to Hearing Request" for Permit No. WQ0004136000 were filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk; a complete copy with attachments and exhibits was either faxed, mailed, or both faxed and mailed to the requestor, the Applicant, the Public Interest Counsel, and the director of the Office of Public Assistance.

for

Alicia M. Lee, Staff Attorney
Environmental Law Division
State Bar No. 24032665

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

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CHIEF CLERKS OFFICE

Mailing List
Cottonwood Auction Barn, LLC
Docket No. 2009-0680-AGR; Permit No. WQ0004136000

FOR THE APPLICANT:
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Cottonwood Auction Barn, LLC
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Dublin, Texas 76446-5327

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LIST OF EXHIBITS

Application by the Cottonwood Auction Barn, LLC for TPDES Permit No. WQ0004136000
TCEQ Docket No. 2009-0680-AGR

Exhibit A — Draft Permit No. WQ0004136000

Exhibit B — Compliance History

Exhibit C — Executive Director's Response to Public Comment

Exhibit D — Map of Facility

Exhibit E — Affected landowners list and map

Exhibit F — Fact Sheet and ED's Preliminary Decision

EXHIBIT A

DRAFT PERMIT NO.

WQ0004136000

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

Mr. Larry Gibson
Cottonwood Auction Barn
9862 East State Highway 6
Dublin, Texas 76446

Re: Cottonwood Auction Barn, Authorization No. WQ0004136000
(RN 102900818, CN 602649568)

Dear Mr. Gibson:

The authorization for your facility and a copy of the current rules for concentrated animal feeding operations (CAFOs) is enclosed. The authorization contains the conditions for the operation of the facility. In addition, the construction and operation of the facility must be consistent with what is represented in the application.

Please submit the liner and capacity certification for any new or modified retention control structure prior to use. You are also required to submit copies of the results from annual sampling as outlined in the facility authorization. These certifications and sample results should be filed with both the Texas Commission on Environmental Quality (TCEQ) in Austin, and the local TCEQ Regional Office and maintained in the facility's pollution prevention plan.

If you have any questions, please contact Ms. Jamie Saladiner of the TCEQ's Wastewater Permitting Section by telephone at (512) 239-4671, or if by correspondence include MC 148 in the letterhead address below.

Sincerely,

L'Oreal W. Stepney, P.E., Director
Water Quality Division

LWS/JS/sp

Enclosures

cc: TCEQ, Region 4
Region 4, Mr. Michael Martin, Stephenville Office, 580-D West Lingleville Road, Stephenville, Texas 76401
Ms. J. Claire Baker, Lowther Consulting, Inc., P.O. Box 78, Dublin, Texas 76446

TPDES Permit No. WQ0004136000
This Permit supersedes and replaces Permit No. 04136
issued on December 13, 1999
[*For TCEQ use only EPA ID No. TX0131156*]

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

TPDES PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS
under provisions of
Section 402 of the Clean Water Act
Chapter 26 of the Texas Water Code

I. Permittee:

A.	Owner	Cottonwood Auction Barn, L.L.C.
B.	Business Name	Cottonwood Auction Barn, L.L.C.
C.	Owner Address	9862 East State Highway 6 Dublin, Texas 76446

II. Type of Permit: Renewal / Water Quality

III. Nature of Business Producing Waste: Concentrated Animal Feeding Operation (CAFO); Auction Barn; SIC No. 05154

IV. General Description and Location of Waste Disposal System:

Maximum Capacity: 1,800 total head
Site Plan: See Attachment A.
Retention Control Structures (RCS) total required capacities without freeboard (acre-feet):
RCS #1-4.94,
Land Management Units (LMUs) (acres): LMU#1-28, LMU#2-49See Attachment B for locations.
Location: The facility is located on the south side of State Highway 6 approximately four and two tenths (4.2) miles east of the intersection of Farm-to-Market Road 219 and State Highway 6 in Dublin, Erath County, Texas. Latitude: 32° 5.08'N Longitude: 98° 15.24'W. See Attachment C.
Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

This Permit contained herein shall expire at midnight, five years after the date of Commission approval.

ISSUED DATE:

For the Commission

V. Definitions. All definitions in Chapter 26 of the Texas Water Code, 30 Texas Administrative Code (TAC) Chapters 305 and 321, Subchapter B shall apply to this permit and are incorporated by reference.

VI. Permit Applicability and Coverage

A. Discharge Authorization. No discharge is authorized by this permit except as allowed by the provisions in this permit and 40 Code of Federal Regulations Chapter 412, which is adopted by reference in 30 TAC Chapter 305.541.

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

C. Air Quality Authorization. This facility is required to obtain individual air quality authorization under 30 TAC 116. (See Section X.J)

VII. Pollution Prevention Plan (PPP) Requirements

A. Technical Requirements

1. PPP General Requirements

(a) The permittee shall update and implement a PPP for this facility upon issuance of this permit. The PPP 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 Section VII.A.;

(5) identify specific individual(s) who is/are responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's PPP;

(6) be signed by the permittee or other signatory authority in accordance with 30 TAC §305.44 (relating to Signatories to Applications); and

(7) be retained on site.

(b) The permittee shall amend the PPP:

(1) before any change in the number or configuration of LMUs;

(2) before any increase in the maximum number of animals;

(3) before operation of any new control facilities;

(4) before any change that 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 discharges of pollutants 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 permit.

(c) Maps. The permittee shall maintain the following maps as part of the PPP.

(1) Site Map. The permittee shall update the site map as needed to reflect the layout of the facility. The map shall include, at a minimum, the following information: facility boundaries; pens; barns; berms; open lots; manure storage areas; areas used for composting; the RCS or other control facilities; LMUs, including off-site areas which are owned, operated, or under the control of the facility owner or operator which will be used for land application of wastewater, sludge, and manure; water wells, abandoned and in use, which are on-site or within 500 feet of the facility boundary; all springs, lakes, or ponds located on-site or within one mile of the facility boundary; and dead animal burial sites.

(2) Land Application Map. Natural Resource Conservation Service (NRCS) soil survey maps of all LMUs shall depict:

(i) the boundary of each LMU and acreage;

(ii) all buffer zones required by this permit; and

(iii) the unit name and symbol of all soils in the LMU.

(d) Potential Pollutant Sources/Site Evaluation

(1) Potential Pollutant Sources. The PPP shall include a description of potential pollutant sources and indicate all measures that will be used to prevent contamination from the pollutant sources. Potential pollutant sources include any activity or material that may reasonably be expected to add pollutants to surface water in the state from the facility.

(2) Soil Erosion. The PPP 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 PPP shall identify measures used to limit erosion and pollutant runoff.

(3) Control Facilities. The PPP shall include the location and a description of control facilities. The control facilities shall be appropriate for the identified sources of pollutants at the CAFO.

(4) Recharge Feature Certification. The recharge feature certification submitted in the permit application shall be implemented, updated by the permittee as often as necessary, and maintained in the PPP.

(5) 100-year Floodplain. All control facilities, including holding pens and the RCS, shall be located outside of the100-year floodplain or protected from inundation and damage that may occur during the flood.

(e) 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 the RCS. Incidental amounts of such substances entering the RCS as a result of stormwater transport of properly applied chemicals is not a violation of this permit.

2. Discharge Restrictions and Monitoring Requirements.

(a) Discharge Restrictions. Wastewater may be discharged to waters in the state from a properly designed, constructed, operated and maintained RCS whenever chronic or catastrophic rainfall events, or catastrophic conditions cause an overflow. There shall be no effluent limitations on discharges from the RCS which meets the above criteria.

(b) Monitoring Requirements. The permittee shall sample and analyze all discharges from the RCS for the following parameters:

Parameter	Sample Type	Sample Frequency
BOD_5	Grab	1/day [1]
Total Coliform	Grab	1/day [1]
Fecal Coliform	Grab	1/day [1]
Total Dissolved Solids (TDS)	Grab	1/day [1]
Total Suspended Solids (TSS)	Grab	1/day [1]
Nitrate (N)	Grab	1/day [1]
Total Phosphorus	Grab	1/day [1]
Ammonia Nitrogen	Grab	1/day [1]
Pesticides [2]	Grab	1/day [1]

[1] Sample shall be taken within the first thirty (30) minutes following the initial discharge and then once per day while discharging.

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

(c) 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 shall document why discharge samples could not be collected. Once dangerous conditions have passed, the permittee shall conduct the required sampling.

3. RCS Design and Construction

(a) RCS Certifications

(1) The permittee shall ensure that the design and completed construction of the modified RCS (See Special Provision X.A.) 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 must be completed for the RCS prior to use and kept on-site in the PPP. Once construction is complete, new capacity and liner certifications for RCS #1 will be provided. The table below shows the current liner and capacity certifications provided in the permit application.

RCS	Liner Certification	Existing Capacity Certification	
	Date	Date	Volume (acre-feet)
RCS #1	July 17, 2000	February 28, 2007	2.46

(b) Design and Construction Standards. The permittee shall ensure that the RCS is designed and constructed in accordance with the technical standards developed by the NRCS, American Society of Agricultural Engineers, American Society of Civil Engineers, or American Society of Testing Materials that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas Professional Engineer must document these variations and their appropriateness to the design.

(c) RCS Drainage Area

(1) The permittee shall describe in the PPP and implement measures that will be used to minimize entry of uncontaminated stormwater into the RCS.

(2) The permittee shall maintain the drainage area to minimize ponding or puddling of water outside the RCS.

(d) RCS Sizing.

(1) The design plan must include documentation describing the sources of information, assumptions and calculations used in determining the appropriate volume capacity and structural features of the RCS, including embankment and liners.

(2) Design Rainfall Event. The RCS authorized under this permit shall be designed and constructed to meet or exceed the margin of safety, equivalent to the volume of runoff and direct precipitation from the

25 year/10 day rainfall event. The design rainfall event for this CAFO is 12.0 inches.

(3) A RCS capacity that is greater than the minimum capacity required by this permit may be allocated to additional sludge storage volume, which will increase the design sludge cleanout interval for the RCS. The new sludge cleanout interval will be identified in the RCS management plan maintained in the PPP, the stage storage tables will accurately reflect the new volumes, and the pond markers will visually identify the new volume levels.

(e) Irrigation Equipment Design. The permittee shall ensure that the irrigation system design is capable of removing wastewater from the RCS on a regular schedule. Equipment capable of dewatering the RCS shall be available and operational whenever needed to restore the operating capacity required by the RCS management plan.

(f) Embankment Design and Construction. The RCS will have a depth of water impounded against the embankment at the spillway elevation of three feet or more, therefore it is considered to be designed with an embankment. The PPP shall include a description of the design specifications for the RCS embankments. The following design specifications are required for any structural modification of a RCS.

(1) Soil Requirements. Soils used in the embankment shall be free of foreign material such as trash, brush, and fallen trees.

(2) Embankment Lifts. The embankment shall be constructed in lifts or layers no more than eight (8) inches compacted to six (6) inches thick at a minimum compaction effort of 95 percent (%) Standard Proctor Density (ASTM D698) at -1% to +3% of 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, or D 6938-07 for moisture and density. Compaction tests will provide support for the liner certification performed by a licensed Texas professional engineer as meeting a permeability no greater than 1×10^{-7} centimeters per second (cm/sec) over a thickness of 18 inches or its equivalency in other materials.

(5) Spillway or Equivalent Protection. The modified RCS, which is constructed with embankments, 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 during chronic or catastrophic rainfall that is greater than the design rainfall event.

(6) Embankment Protection. The modified RCS must have a minimum of two (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.

(g) RCS Hydrologic Connection. The permittee shall ensure site-specific documentation is prepared and certified by a licensed Texas professional engineer or licensed Texas professional geoscientist that shows that no significant hydrologic connection exists between the contained wastewater and water in the state. Where the permittee cannot document that no significant hydrologic connection exists, the RCS must have a liner consistent with the requirements of this subsection.

(1) 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.

(2) If it is claimed that no significant leakage would result from the use of in-situ materials, documentation must be provided by an NRCS engineer, a licensed Texas professional engineer, or a licensed Texas professional geoscientist that a liner is not needed to prevent a significant hydrologic connection between the contained wastewater and waters in the state. This information will be considered documentation that no significant hydrologic connection exists.

(3) Site-specific conditions may be considered in the design and construction of liners. Where no site-specific assessment has been performed demonstrating 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, a liner must be designed by a licensed Texas professional engineer and documented to have hydraulic conductivities no greater than 1×10^{-7} cm/sec, with a thickness of 18 inches or greater or its equivalency in other materials. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. The permittee shall maintain the liner to minimize the percolation of wastewater through the liner.

(4) Liner Sampling.

(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 one floor sample shall be collected per acre of surface area at the spillway elevation and a minimum of one sidewall sample shall be collected for each 2 acres of

surface area at the spillway elevation. For the purpose of determining the number of samples to collect, surface acres shall be rounded up to the next whole acre. Distribution of the samples shall be representative of liner characteristics. Documentation shall be provided identifying the location of the samples with respect to the RCS liner.

(iii) Undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D 5084 or other method approved by the executive director.

(5) 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.

4. Operation and Maintenance of RCS

(a) RCS Operation and Maintenance

(1) The permittee must operate and maintain a margin of safety in the RCS to contain the volume of runoff and direct precipitation from the 25 year/10 day rainfall event.

(2) The permittee shall implement a RCS management plan incorporating the margin of safety developed by a licensed Texas professional engineer (See Special provision X.A.3). The management plan shall become a component of the PPP, shall be developed for the RCS, and must describe or include:

(i) RCS management controls appropriate for the CAFO and the methods and procedures for implementing such controls;

(ii) the methods and procedures for proper operation and maintenance of the RCS consistent with the system design;

(iii) the appropriateness and priorities of any controls reflecting the identified sources of pollutants at the facility;

(iv) a stage/storage table for the RCS with minimum depth increments of one-foot, including the storage volume provided at each depth;

(v) a second table or sketch that includes increments of water level ranges for volumes of total design storage, including the storage volume provided at each specified depth (or water level) and the type of storage designated by that depth; and

(vi) the planned end of month storage volume anticipated for the RCS for each month of the year and the corresponding operating depth expected at the end of each month of the year, based on the design assumptions.

(3) The wastewater level in the RCS shall be maintained at or below the maximum operating level expected during that month, according to the design of the RCS. When rainfall volumes exceed average rainfall data used in design calculations planned end of month storage volumes may encroach into the design storm event storage provided that documentation is available to support that the design parameters have been exceeded and that the RCS is otherwise being managed according to the RCS Management Plan criteria. In circumstances where the RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth. Also, if the water level in the RCS encroaches into the storage volume reserved for the design rainfall event, the permittee must document, in the PPP, the conditions that resulted in this occurrence. As soon as irrigation is feasible and not prohibited by Section VII.A.7.f. and g., the permittee shall irrigate until the RCS water level is at or below the maximum operating level expected during that month.

(4) Imminent Overflow. If the RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, 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 the discharge from the edge of the LMU where the discharge occurs, analyze the samples for the parameters listed in Section VII. A.2.(b), and provide the appropriate notifications as required by Section VIII.B of this permit and 30 TAC §321.44.

(5) Permanent Pond Marker. The permittee shall install and maintain a permanent pond marker (measuring device) in the RCS, visible from the top of the levee to show the following:

(i) the volume for the design rainfall event;

(ii) one-foot increments beginning from the bottom of the RCS to the top of the embankment or spillway; and

(iii) design volume levels for maximum sludge accumulation and operating volume (rainfall runoff minus evaporation) must be identifiable on the marker.

(6) Rain Gauge. A rain gauge capable of measuring the design rainfall event shall be kept on site and properly maintained.

(7) Sludge Removal. The permittee shall monitor sludge accumulation and depth, based upon the design sludge storage volume in the RCS. Sludge shall be removed from the RCS in accordance with the design schedule for cleanout in the RCS Management Plan to prevent the accumulation of sludge from exceeding the designed sludge volume

of the structure. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. (See Special Provision X.E. for additional requirements related to sludge monitoring.) Sludge may only be beneficially utilized by land application to a LMU if in accordance with a nutrient management plan. Alternatively, sludge may be disposed by any of the following method(s):

(i) delivery to a composting facility authorized by the executive director;

(ii) delivery to a permitted landfill located outside the major sole source impairment zone;

(iii) beneficially utilized by land application to land located outside of the major sole source impairment zone; or

(iv) put to another beneficial use approved by the executive director.

(8) Liner Protection and Maintenance. The permittee shall maintain the liner to inhibit infiltration of wastewater. Liners must be protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas professional engineer within thirty (30) days of the damage.

(9) Closure Requirements. A closure plan must be developed when the RCS will no longer be used and/or when the CAFO ceases or plans to cease operation. The closure plan shall be submitted to the appropriate regional office and the CAFO Permits Team of the Water Quality Division in Austin (MC-150) within ninety (90) days of when operation of the CAFO or the RCS terminates. The closure plan for the RCS must, at a minimum, be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), as amended, and using the guidelines contained in the Texas Cooperative Extension/ NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended. The permittee shall maintain or renew its existing authorization and maintain compliance with the requirements of this permit until the facility has been closed.

5. General Operating Requirements

(a) Scrape Systems. Scrape systems shall be scraped in accordance with design criteria.

(b) Pen Maintenance. The permittee shall maintain earthen pens to ensure good drainage, minimize ponding, and minimize the entrance of uncontaminated storm water to the RCS.

(c) Carcass Disposal. Carcasses shall be collected within twenty four (24) hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and 30 TAC Chapter 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 odor.

(d) Manure and Sludge Storage

(1) Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability, and the NRCS Field Office Technical Guide (Part 651, Chapter 10) or equivalent standards.

(2) When manure is stockpiled, it shall be stored in a well-drained area, and the top and sides of stockpiles shall be adequately sloped to ensure proper drainage and prevent ponding of water. Runoff from manure or sludge storage piles must be retained on site. If the manure or sludge areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff during the design rainfall event, the manure or sludge areas must be located within the drainage area of the RCS and accounted for in the design calculations of the RCS.

(3) Manure or sludge stored for more than thirty (30) days must be stored within the drainage area of the RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from leaving the storage area. All storage sites and structures located outside the drainage area shall be designated on the site map. Storage for more than thirty (30) days is prohibited in the 100-year floodplain.

(4) Temporary storage of manure or sludge shall not exceed thirty (30) days and is allowed only in LMUs or the 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 by berms or other structures to prevent inundation or damage that may occur.

(e) Composting. Composting on-site shall be performed in accordance with 30 TAC Chapter 332 (relating to Composting). The permittee may compost waste generated on site, including manure, sludge, bedding, feed, and dead animals. 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 plan and accounted for in the design calculations of the RCS.

6. Well Protection Requirements.

(a) The permittee shall not locate or operate a new RCS, holding pen, or LMU within the following buffer zones:

(1) public water supply wells - 500 feet;

(2) wells used exclusively for private water supply - 150 feet; or

(3) wells used exclusively for agriculture irrigation - 100 feet.

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

(c) Construction of any new water wells must be done by a licensed water well driller.

(d) All abandoned and unuseable wells shall be plugged according to 16 TAC §76.702.

(e) The table below shows the status of all wells on the facility and the BMPs used to protect them.

Well (Map Number*)	Status	BMPs
1	Producing	Maintain 150-ft buffer
2	Producing	Maintain 150-ft buffer
3	Non-Producing	Maintain 150-ft buffer
4	Producing	Maintain 150-ft buffer

*Map Numbers correspond with Attachment B.

7. Land Application

(a) Nutrient Management Plan (NMP) Required. The certified NMP submitted in the permit application shall be implemented upon issuance of this permit. The plan shall be updated as appropriate or at a minimum of annually according to NRCS guidance for Practice Standard 590. The permittee shall make available to the executive director, upon request, a copy of the site specific NMP and documentation of the implementation.

(b) Comprehensive Nutrient Management Plan (CNMP) required. The permittee must continue to operate under a CNMP certified by the Texas State Soil and Water Conservation Board.

(c) Critical Phosphorus Level.

(1) When results of the annual soil analysis show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm in Zone 1 (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated) depth for a particular LMU or if ordered by the commission to do so in order to protect the quality of waters in the state, then the permittee shall:

(i) file with the executive director a new or amended nutrient utilization plan (NUP) with a phosphorus reduction component based on crop removal that is certified as acceptable by a person described in (3) below; or

(ii) show that the level is supported by a NUP that is certified as acceptable by a person described in (3) below.

(2) The permittee shall cease land application of wastewater, sludge, and manure to the affected area until the NUP has been approved by the TCEQ. After a NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level of 200 ppm extractable phosphorus. Thereafter, the permittee shall implement the requirements of the nutrient management plan.

(3) NUP. A NUP is a NMP, based on NRCS Practice Standard Code 590, which utilizes a crop removal application rate. The NUP, based on crop removal, must be developed and certified by one of the following individuals or entities:

(i) an employee of the NRCS;

(ii) a nutrient management specialist certified by the NRCS;

(iii) the Texas State Soil and Water Conservation Board;

(iv) the Texas Cooperative Extension;

(v) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas; or

(vi) a Certified Professional Agronomist certified by the American Society of Agronomy, a Certified Professional Soil Scientist certified by the Soil Science Society of America, or a licensed Texas professional geoscientist-soil scientist after approval by the executive director based on a determination by the executive director that another person or entity identified in this paragraph cannot develop the plan in a timely manner.

(4) When results of the annual soil analysis for extractable phosphorus indicate a level greater than 500 ppm in Zone 1 (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated) depth, the permittee shall file with the executive director a new or amended NUP with a phosphorus reduction component, based on crop removal, that is certified as acceptable by a person described in (3) above. After the new or amended NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below 500 ppm extractable phosphorus.

(5) If the permittee is required to have a NUP with a phosphorus reduction component based on crop removal, and if the results of tests performed on composite soil samples collected 12 months or more after the plan is filed do not show a reduction in phosphorus

concentration in Zone 1 (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated) depth, then the permittee is subject to enforcement action at the discretion of the executive director.

(d) Buffer Requirements. The permittee shall meet the following buffer requirements for each LMU:

(1) Water in the state. The permittee shall not apply wastewater, sludge, and manure within the buffer distances as noted on Attachment B and Special Provision X.D. Vegetative buffers shall be maintained in accordance with NRCS Field Office Technical Guidance. The permittee shall maintain the filter strip (according to NRCS Code 393) between the vegetative buffer and the land application area. If the land application area is cropland the permittee shall install and maintain contour buffer strips (according to NRCS Code 332) within the land application area in addition to the buffer distances required by this permit.

(2) Water wells. The permittee shall comply with the well protection requirements listed in Section VII.A.6.

(e) Exported wastewater, sludge, and/or manure. Wastewater, sludge, and/or manure removed from the operation shall be disposed of by:

(1) delivery to a composting facility authorized by the executive director;

(2) delivery to a permitted landfill located outside of the major sole source impairment zone;

(3) beneficial use by land application to land located outside of the major sole source impairment zone;

(4) put to another beneficial use approved by the executive director; or

(5) providing wastewater, sludge, and/or manure to operators of third-party fields, i.e. areas of land in the major sole source impairment zone not owned, operated, controlled, rented, or leased by the CAFO owner or operator, that have been identified in the PPP.

(i) There must be a written contract between the permittee and the recipient that includes, but is not limited to, the following provisions:

(A) All transferred wastewater, sludge, and/or manure shall be beneficially applied to third-party fields identified in the PPP in accordance with the applicable requirements in 30 TAC §321.36 and §321.40 at an agronomic rate based on soil test phosphorus. The requirements for development or implementation of a nutrient management plan or nutrient utilization plan, under 30 TAC §321.40, do not apply to third-party fields.

(B) Manure and sludge must be incorporated on cultivated fields within forty-eight (48) hours after land application.

(C) Land application rates shall not exceed the crop nitrogen requirement when soil phosphorus concentration in Zone 1 (0-6 inch) depth is less than or equal to 50 ppm phosphorus.

(D) Land application rates shall not exceed two times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 (0-6 inch) depth is greater than 50 ppm phosphorus and less than or equal to 150 ppm phosphorus.

(E) Land application rates shall not exceed one times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 (0-6 inch) depth is greater than 150 ppm phosphorus and less than 200 ppm phosphorus.

(F) Before commencing manure, wastewater, compost, and/or sludge application to third-party fields, at least one representative soil sample from each third-party field must be collected by a certified nutrient management specialist and the samples analyzed in accordance with 30 TAC §321.36. Third-party fields which have had wastewater, sludge, and/or manure applied during the preceding year must be sampled annually by a certified nutrient management specialist and the samples analyzed in accordance with 30 TAC §321.36.

(G) A copy of the annual soil analyses shall be provided to the permittee within sixty (60) days of the date the samples were taken.

(H) Temporary storage of wastewater, sludge, and/or manure is prohibited on third-party fields.

(ii) The permittee is prohibited from delivering wastewater, sludge, and/or manure to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm or after becoming aware that the third-party operator is not following appropriate provisions of 30 TAC §321.36, §321.40 and/or the contract.

(iii) The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field under contract.

(iv) The permittee shall submit records to the appropriate regional office quarterly that contain the name, locations, and amounts of wastewater, sludge, and/or manure transferred to operators of third-party fields.

(f) Irrigation Operating Requirements

(1) Minimize Ponding. 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.

(2) Discharge Prohibited.

(i) The drainage of wastewater, sludge, and manure is prohibited from a LMU, unless authorized under Section VII.A.4(a)(4).

(ii) Where wastewater, sludge, and manure is applied in accordance with the nutrient management plan and/or NUP, precipitation-related runoff from LMUs under the control of the permittee is authorized.

(iii) If a discharge from the irrigation system is documented as a violation, the permittee may be required by the executive director to install an automatic emergency shut-down or alarm system to notify the permittee of system problems.

(3) Backflow Prevention. If the permittee introduces wastewater or chemicals to water well heads for the purpose of irrigation, then backflow prevention devices shall be installed according to 16 TAC Chapter 76 (related to Water Well Drillers and Water Well Pump Installers).

(g) Nighttime Application.

(1) Land application at night shall only be allowed if there is no occupied residence(s) within one quarter (0.25) of a mile from the outer boundary of the actual area receiving manure, sludge, or wastewater application. In areas with an occupied residence within one quarter (0.25) of a mile from the outer boundary of the actual area receiving manure, sludge, or wastewater application, application shall only be allowed from one (1) hour after sunrise until one (1) hour before sunset, unless the current occupant of such residences have, in writing, agreed to specified nighttime applications.

(2) Land application of wastewater, sludge, and manure is prohibited between 12a.m. and 4a.m.

8. Sampling and Testing.
   (a) Manure and Wastewater. The permittee shall collect and analyze at least one representative sample of wastewater and one representative sample of manure each year for total nitrogen, total phosphorus, and total potassium. The results of these analyses shall be used in determining application rates.
   (b) Soils.
      (1) Initial Sampling. Before commencing wastewater, sludge, and manure application to LMUs or third-party fields, the permittee shall have at least one representative soil sample from each of the LMUs or third-party fields collected and analyzed according to the following procedures.
      (2) Annual Sampling. The permittee shall have soil samples collected annually for each current and historical LMU.
      (3) Sampling Procedures. Sampling procedures shall employ accepted techniques of soil science for obtaining representative samples and analytical results, and be consistent with approved methods described in the executive director's guidance entitled "Soil Sampling for Nutrient Utilization Plans (RG-408)."
         (i) Soil samples must be collected by one of the following persons:
            (A) the NRCS;
            (B) a certified nutrient management specialist;
            (C) the Texas State Soil and Water Conservation Board;
            (D) the Texas Cooperative Extension; or
            (E) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas.
         (ii) Samples shall be collected and analyzed within the same forty-five (45) day time frame each year, except when crop rotations or inclement weather require a change in the sampling time. The reason for a change in sampling timeframe shall be documented in the PPP.
         (iii) Obtain one composite sample for each soil depth zone per uniform soil type (soils with the same characteristics and texture) within each LMU and third-party field.
         (iv) Composite samples shall be comprised of 10 - 15 randomly sampled cores obtained from each of the following soil depth zones:
            (A) Zone 1: 0-6 inches (where the manure, sludge, or compost is physically incorporated or injected directly into the soil) or 0-2 inches (where the manure, sludge is not incorporated into the soil). Wastewater is considered to be incorporated upon land application if it is less than two percent (2%) solids. If a 0-2 inch sample is required, then an additional sample from the

2-6 inch soil depth zone shall be obtained in accordance with the provisions of this section; and

(B) Zone 2: 6-24 inches.

(4) Laboratory Analysis. Samples shall be analyzed by a soil testing laboratory. Physical and chemical parameters and analytical procedures for laboratory analysis of soil samples shall include the following:

(i) nitrate reported as nitrogen in ppm;

(ii) phosphorus (extractable, ppm) using Mehlich III with Inductively Coupled Plasma (ICP);

(iii) potassium (extractable, ppm);

(iv) sodium (extractable, ppm);

(v) magnesium (extractable, ppm);

(vi) calcium (extractable, ppm);

(vii) soluble salts (ppm) or electrical conductivity (dS/m) - determined from extract of 2:1 (v/v) water/soil mixture; and

(viii) soil water pH (soil:water, 1:2 ratio).

9. Preventative Maintenance Program.

(a) Facility Inspections

(1) General Requirements

(i) Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.

(ii) The permittee shall draft a report, to be maintained in the PPP, to document the date of inspections, observations and actions taken in response to deficiencies identified during the inspection. The permittee shall correct all the deficiencies within thirty (30) days or shall document the factors preventing immediate correction.

(2) Daily Inspections. The permittee shall conduct daily inspections on all water lines, including drinking water and cooling water lines, which are located within the drainage area of the RCS.

(3) Weekly Inspections. The permittee shall conduct weekly inspections on:

(i) all control facilities, including the RCS, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to the RCS; and

(ii) equipment used for land application of wastewater, sludge, and manure.

(4) Monthly Inspections. The permittee shall conduct monthly inspections on:
  (i) mortality management systems, including collection areas; and
  (ii) disposal and storage of toxic pollutants, including pesticide containers.

(5) Annual Site Inspection.
  (i) The permittee shall annually conduct a complete site inspection of the production area and LMUs.
  (ii) The inspection shall verify that:
    (A) the description of potential pollutant sources is accurate;
    (B) the site plan/map has been updated or otherwise modified to reflect current conditions; and
    (C) the controls outlined in the PPP to reduce pollutants and avoid nuisance conditions are being implemented and are adequate.

(b) Five Year Evaluation. Once every five years the permittee shall have a licensed Texas professional engineer review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner and RCS capacity documentation, and complete and certify a report of their findings. The report must be kept in the PPP.

10. Management Documentation. The permittee shall maintain the following records in the PPP:
  (a) a copy of the administratively complete and technically complete individual water quality permit application and the written authorization issued by the commission or executive director;
  (b) a copy of the approved recharge feature certification and appropriate updates;
  (c) a copy of the comprehensive nutrient management plan, nutrient management plan, nutrient utilization plan and appropriate updates to these plans, if required;
  (d) the RCS liner certifications;
  (e) any written agreement with a landowner which documents the allowance of nighttime application of wastewater, sludge, and manure;
  (f) documentation of employee and operator training, including verification of the date, time of attendance, and completion of training;
  (g) the RCS management plan;
  (h) the capacity of the RCS, as certified by a licensed Texas professional engineer; and
  (i) a copy of all third-party field contracts.

B. General Requirements

1. 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 and herbicide contaminated waters into surface water in the state. All wastes from dipping vats, pest and parasite control units, 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.
4. The permittee shall operate the CAFO in such a manner as to prevent nuisance conditions of air pollution as mandated by Texas Health and Safety Code, Chapters 341 and 382.
5. The permittee shall take reasonable steps necessary to prevent adverse effects to human health or safety, or to the environment.
6. The permittee shall maintain control of the RCS, required LMUs, and control facilities identified on the site map submitted in the application. In the event the permittee loses control of any of these areas, the permittee shall notify the executive director within five (5) working days.
7. If animals are maintained in pastures, the permittee shall maintain crops, vegetation, forage growth or post harvest residues in those pastures during the normal growing season, excluding the feed and/or water trough areas and open lots designated on the site map.

C. Training

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

2. Operator Training. The operator shall attend and complete at least eight (8) hours of continuing education in animal waste management or its equivalent, developed by the executive director and the Texas Cooperative Extension, for each two year period.
3. Verification of the date and time(s) of attendance and completion of required training shall be documented in the PPP.

VIII. Recordkeeping, Reporting, and Notification Requirements

A. Recordkeeping. The permittee shall keep records on site for a minimum of five (5) years from the date the record was created and shall submit them within five (5) days of a written request by the executive director.

1. The permittee shall update records daily to include:
   (a) all measurable rainfall events; and
   (b) the wastewater levels in the RCS, as shown on the depth marker. In circumstances where the RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth.
2. The permittee shall update records weekly to include:
   (a) records of all wastewater, sludge, and/or manure removed from the CAFO that shows the dates, amount, and recipient. The permittee must make the most recent nutrient analysis available to any hauler; and
   (b) inspections of control facilities and land application equipment.
3. The permittee shall update records monthly to include:
   (a) records describing mortality management practices;
   (b) storage and disposal of chemicals, including pesticide containers; and
   (c) records of all wastewater, sludge, and manure applied on LMUs. Such records must include the following information:
      (i) date of wastewater, sludge, and manure application to each LMU;
      (ii) location of the specific LMU and the volume applied during each application event;
      (iii) acreage on which wastewater, sludge, and manure is applied;
      (iv) basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU on a dry basis, including sources of nutrients other than wastewater, sludge, and manure; and
      (v) weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application.
4. The permittee shall update records annually to include:
   (a) annual nutrient analysis for at least one representative sample of wastewater and one representative sample of manure for total nitrogen, total phosphorus, and total potassium;
   (b) any initial and annual soil analysis reports;
   (c) the annual site inspection report;

(d) percent moisture content of the manure, sludge, and wastewater; and
(e) actual annual yield of each harvested crop for each LMU.

5. The Five Year Evaluation report must be updated every five (5) years.
6. The permittee shall keep the following records on-site:
   (a) a list of any significant spills of potential pollutants at the CAFO that have a significant potential to reach water in the state;
   (b) documentation of liner maintenance by an NRCS engineer, a licensed Texas professional engineer or a licensed Texas professional geoscientist;
   (c) RCS design calculations and as built capacity certification;
   (d) embankment certification;
   (e) liner certification;
   (f) a copy of current and amended site plans; and
   (g) copies of all notifications to the executive director, including any made to a regional office.

B. Reporting and Notifications

1. The permittee shall provide written notice to the appropriate TCEQ regional office as soon as the RCS cleaning is scheduled, but not less than ten (10) 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 the cleaning of solid separators or settling basins that are functioning as solid separators.
2. The permittee shall notify the appropriate TCEQ regional office in writing or by electronic mail with the date, time, and location at least ten (10) working days before collecting soil samples from current and historical LMUs; and third-party fields.
3. Discharge notification. If for any reason there is a discharge of manure, sludge or wastewater into water in the state, the permittee shall notify the appropriate TCEQ regional office orally within one (1) hour of discovery; unless it is not reasonably possible to do so in which event the discharge shall be reported as soon as reasonably possible, but in no event later than twenty-four (24) hours from when the discharge occurred. The permittee shall also submit written notice, within fourteen (14) working days of the discharge to the Office of Compliance and Enforcement, Enforcement Division (MC 224). In addition, the permittee shall document the following information, keep the information on site, and submit the information to the appropriate regional office within fourteen (14) working days of becoming aware of such discharge. The written notification must include:
   (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; and

(d) Discharge monitoring analyses required by this permit.

4. In the event of a discharge of manure, sludge, or wastewater from the RCS or a LMU during a chronic or catastrophic rainfall event or resulting from catastrophic conditions, the permittee shall orally notify the appropriate TCEQ regional office within one (1) hour of the discovery of the discharge. The permittee shall send written notification to the appropriate regional office within fourteen (14) working days.

5. Chronic Rainfall Discharge. In the event of a discharge of manure, sludge or wastewater from the RCS or a LMU due to chronic rainfall, the permittee shall submit a report to the appropriate TCEQ regional office showing the CAFO records that substantiates that the overflow was a result of cumulative rainfall that exceeded the design rainfall event without the opportunity for dewatering, and was beyond the control of the permittee. After review of the report, if required by the executive director, the permittee shall have an engineering evaluation by a licensed Texas professional engineer developed and submitted to the executive director. This requirement is in addition to the discharge notification requirement in this permit.

6. Impacts to Human Health or Safety, or the Environment. The permittee shall provide the following noncompliance notifications:

   (a) Any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally, e-mail, or electronic facsimile transmission (FAX) to the TCEQ regional office within twenty four (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 (MC 224) within five (5) 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.

   (b) In the event the permittee discharges manure, sludge, or wastewater other than as authorized in the permit, the permittee shall give twenty four (24) hour oral, email, or fax notice and five (5) day written notice to TCEQ as required by paragraph (a) above.

7. The permittee shall submit an annual report to the appropriate regional office and the Enforcement Division (MC 224) by February 15 of each year for the reporting period of January 1 to December 31 of the previous year. The report shall be submitted on forms prescribed by the executive director to include, but not limited to:

(a) number and type of animals, whether in open confinement or housed under roof;
(b) estimated total manure, sludge, and wastewater generated during the reporting period;
(c) total wastewater, sludge, and manure land applied during the last twelve (12) months on-site at the CAFO facility;
(d) total wastewater, sludge, and/or manure transferred to other persons during the reporting period;
(e) total number of acres for land application under the control of the permittee and all third-party acreage;
(f) summary of discharges of manure, sludge, or wastewater from the production area that occurred during the reporting period including dates, times, and approximate volume;
(g) a statement indicating that the NMP/NUP, under which the CAFO is operating, was developed and approved by a certified nutrient management specialist;
(h) a copy of the initial soil analysis for each new LMU, regardless of whether manure, wastewater, or sludge has been applied;
(i) soil monitoring reports of all soil samples collected in accordance with the requirements of this permit;
(j) groundwater monitoring reports (if applicable); and
(k) any other information requested by the executive director.

8. The permittee shall furnish to the appropriate regional office, the Enforcement Division (MC 224), and the Water Quality Assessment Team (MC 150) soil testing analysis of all soil samples within sixty (60) days of the date the samples were taken in accordance with the requirements of this permit.

IX. Standard Permit Conditions

A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued and is grounds for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

B. The permittee must apply for an amendment or renewal before the expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. Authorization to continue such activity terminates upon the effective denial of said 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 activity to maintain compliance with the permit conditions.

D. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.

E. 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.

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 alterations or additions would require a permit amendment or result in a violation of permit requirements.

H. Authorization from the commission is required before beginning any change in the permitted facility or activity that would result in noncompliance with other permit requirements.

I. Inspection and entry shall be allowed under Texas Water Code, Chapters 26-28, Health and Safety Code, §§361.032-361.033 and §361.037, and 40 Code of Federal Regulations (CFR) §122.41(I). The statement in Texas Water Code, §26.014 that the commission entry of a facility 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 facility, but merely describes the commission's duty to observe appropriate rules and regulations during inspection.

J. 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 maintained 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 quality assurance/quality control records.
3. The permittee shall ensure that properly trained and authorized personnel monitor and sample the soil or wastewater related to any permitted activity.

K. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly shall be reported to the executive director as promptly as possible.

L. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §305.97 (relating to Action on Application for Transfer).

M. PPPs, 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).

N. A permit may be amended, suspended and re-issued, or revoked for cause. The filing of a request by the permittee for a permit amendment, suspension and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

O. A permit does not convey any property rights of any sort or any exclusive privilege.

P. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date.

Q. If the permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in an application, or in any report to the executive director, the permittee shall promptly submit such facts or information.

R. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code, §§26.136, 26.212, and 26.213, for violations including but not limited to the following:

1. negligently or knowingly violating Clean Water Act (CWA) §§301, 302, 306, 307, 308, 318, or 405 or any condition or limitation implementing any sections in a permit issued under CWA §402, or any requirement imposed in a pretreatment program approved under CWA §402(a)(3) or §402(b)(8);
2. falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; or
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.

S. The permittee shall comply with all applicable rules and regulations of the commission, including 30 TAC 321, Subchapter B.

T. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
1. Violation of any terms or conditions of this permit;
2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

U. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

V. In accordance with the Texas Water Code § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

W. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

X. Notice of Bankruptcy.
1. Each permittee shall notify the executive director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
   (a) the permittee;
   (b) an entity (as that term is defined in 11 USC, §101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
   (c) an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
2. This notification must indicate:
   (a) the name of the permittee;
   (b) the permit number(s);
   (c) the bankruptcy court in which the petition for bankruptcy was filed; and
   (d) the date of filing of the petition.

X. Special Provisions

A. RCS Modifications.

1. The permittee shall increase the size of existing RCS #1 to meet the total required capacity as listed on page 1 of this permit. Modifications shall comply with Section VII.A.3 of this permit. The table below indicates the minimum volume allocations for the RCS.

RCS#	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge Accumulation	Water Balance	Required Capacity without Freeboard	Actual Capacity without Freeboard
1	3.86	0	0	0.79	0.29	4.94	2.46

2. Compliance Schedule. All RCS modifications required by this permit shall be completed within 180 days after the issuance date of this permit. Upon written request to the TCEQ Regional Office, the Executive Director may grant an extension to the 180 day requirement.
3. Once construction of RCS #1 is completed, the RCS management plan will be modified to reflect the new volumes and implemented within thirty (30) days.

B. Future Revisions to Bosque River Total Maximum Daily Load (TMDL). The permittee is hereby placed on notice that this permit may be amended by the Texas Commission on Environmental Quality in order to make the terms and conditions of this permit consistent with any revisions to the Bosque River TMDL, associated Implementation Plan, and with any revisions to federal regulations.

C. The permittee shall submit the following records to the TCEQ Regional Office and the Enforcement Division (MC-224) annually, in conjunction with the annual report required by Section VIII.B.7 of this permit:

1. date of wastewater, sludge, and manure application to each LMU;
2. location of the specific LMU and the volume applied during each application event;
3. acreage of each individual crop on which wastewater, sludge, and manure is applied;
4. basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than wastewater, sludge, and manure on a dry basis;
5. weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty four (24) hours before and after the land application; and
6. annual nutrient analysis for at least one (1) representative sample of manure, sludge (if applicable), and wastewater for total nitrogen, total phosphorus, and total potassium.

D. The table below describes the buffers that the permittee is required to install and maintain according to the NRCS practice standards in the referenced code. The map in Attachment B specifically describes the location and distance requirements for all buffers.

LMU#	Vegatative Buffer setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip flow length (feet)
1	100	36
2	100	36

E. The sludge volume in the RCS will be measured and recorded in the PPP as necessary, but at least annually beginning in year three (3) of the permit.

F. There will be no grazing of livestock on the LMUs for this CAFO unless the NMP reflects grazing and the grazing practices mentioned in the NRCS Conservation Practice Code 393, Filter Strip, are implemented to protect buffers.

G. The permittee shall repair the cracks in the slab around Well #3 within 180 days of permit issuance. Documentation of the repairs shall be submitted to the Stephenville Regional Office and the CAFO Permits Team (MC 150).

H. All runoff from silage, commodity, and hay storage outside the RCS drainage area will be contained. Appropriate provisions for that containment will be stated in the PPP upon issuance of the permit. This permit does not authorize any discharge from the silage, commodity, or hay storage areas located outside the drainage area of the RCS.

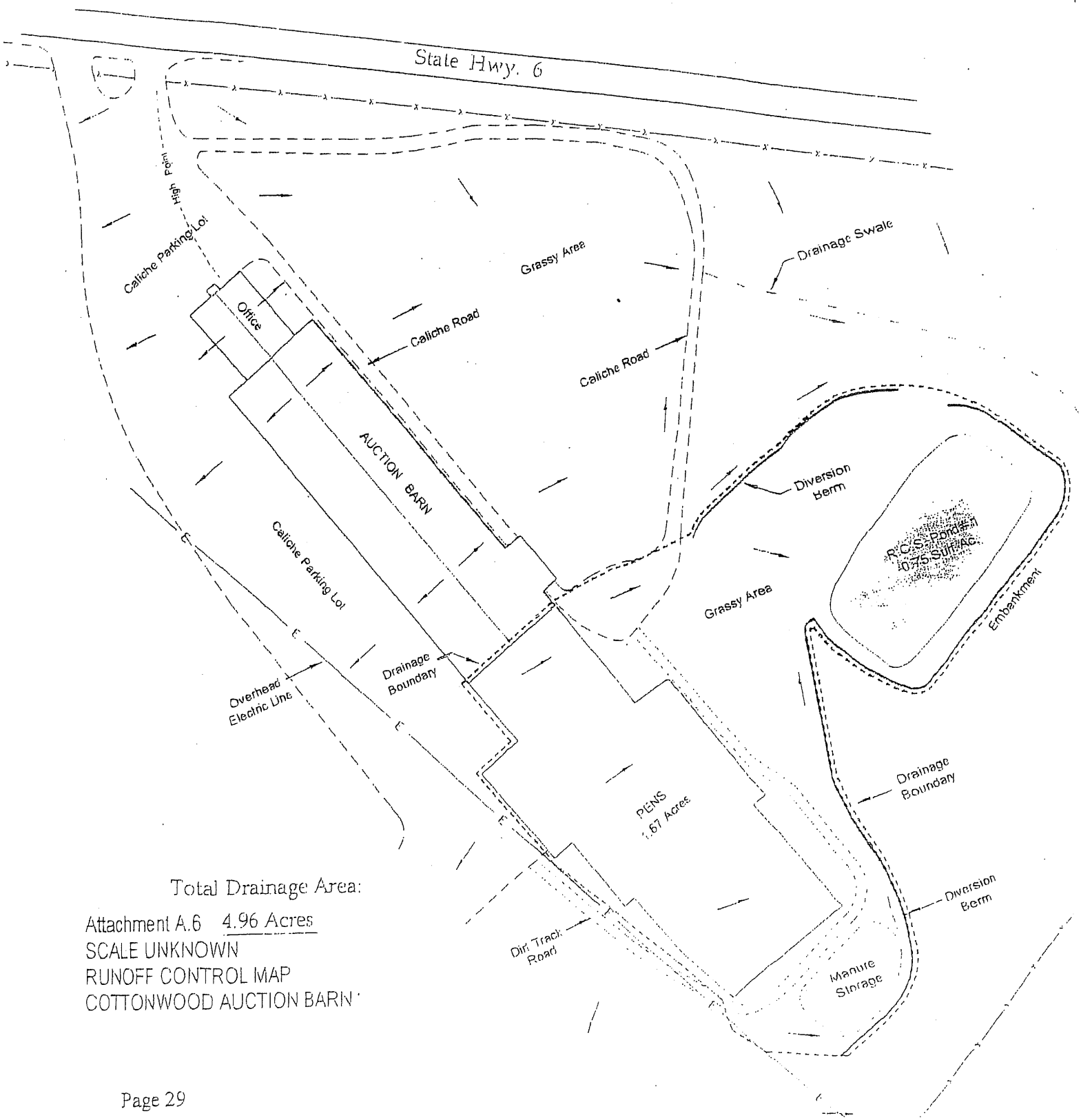
I. A LMU map showing historical LMUs must be maintained onsite in the PPP.

J. The permittee cannot exceed 999 total head at any one time until individual air authorization is obtained under 30 TAC 116 because of the occupied residence within the 0.25 mile buffer zone.

K. There will be no process generated wastewater or wash water entering the RCS from the confinement area at any time.

L. The permittee cannot exceed 300 total head at any one time in the open lots. The remaining animals are required to remain in the covered barn.

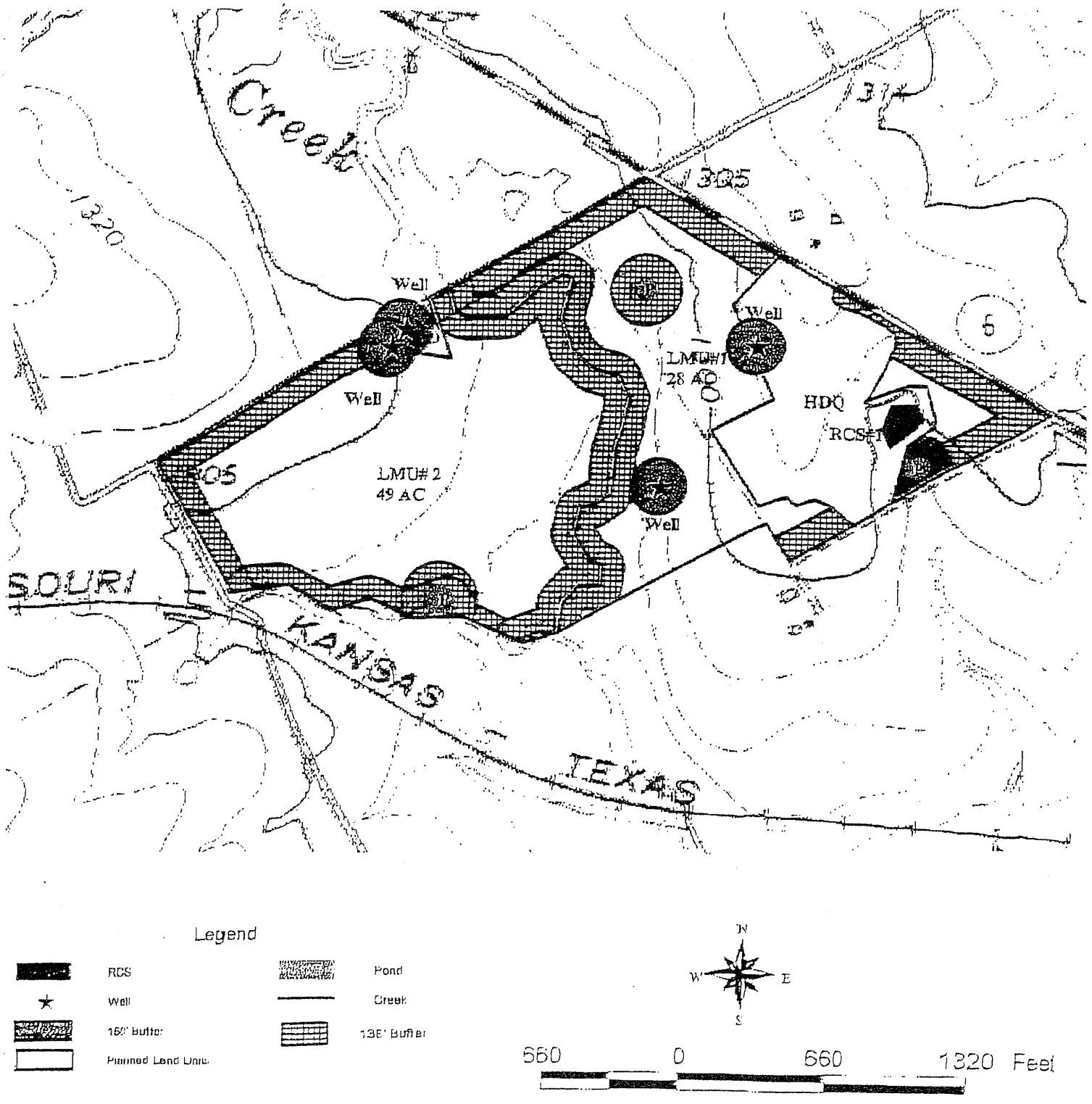
ATTACHMENT A
SITE MAP



Total Drainage Area:

Attachment A.6 4.96 Acres
SCALE UNKNOWN
RUNOFF CONTROL MAP
COTTONWOOD AUCTION BARN

ATTACHMENT B
LAND APPLICATION AREAS



ATTACHMENT C
VICINITY MAP

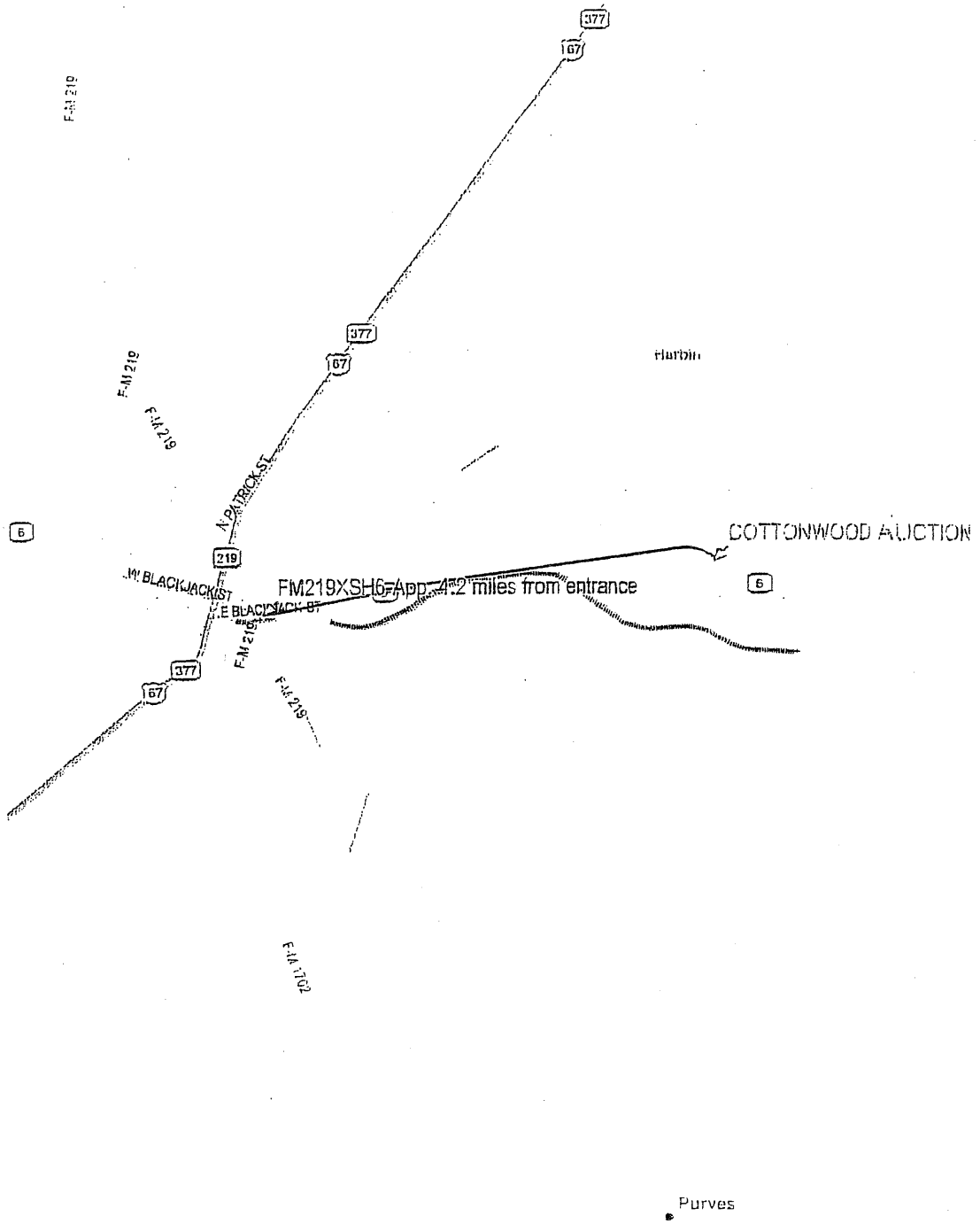


EXHIBIT B

COMPLIANCE HISTORY

Compliance History Report

Customer/Respondent/Owner-Operator:	CN602649568	Cottonwood Auction Barn, L.L.C.	Classification: AVERAGE	Rating: 9.33
Regulated Entity:	RN102900818	COTTONWOOD AUCTION BARN	Classification: AVERAGE	Site Rating: 9.33

ID Number(s):

WASTEWATER AGRICULTURE	PERMIT	WQ0004136000
WASTEWATER AGRICULTURE	PERMIT	TX0131156
WASTEWATER	EPA ID	TX0131156
AIR NEW SOURCE PERMITS	REGISTRATION	86753

Location: 9862 E STATE HIGHWAY 6, DUBLIN, TX, 76446

TCEQ Region: REGION 04 - DFW METROPLEX

Date Compliance History Prepared: July 06, 2009

Agency Decision Requiring Compliance History: Enforcement

Compliance Period: June 01, 2000 to July 06, 2009

TCEQ Staff Member to Contact for Additional Information Regarding this Compliance History

Name: Staff Name Phone: 239 - 1000

Site Compliance History Components

1. Has the site been in existence and/or operation for the full five year compliance period? Yes
2. Has there been a (known) change in ownership/operator of the site during the compliance period? No
3. If Yes, who is the current owner/operator? N/A
4. if Yes, who was/were the prior owner(s)/operator(s) ? N/A
5. When did the change(s) in owner or operator occur? N/A
6. Rating Date: 9/1/2008 Repeat Violator: NO

Components (Multimedia) for the Site :

A. Final Enforcement Orders, court judgements, and consent decrees of the state of Texas and the federal government.

Effective Date: 10/04/2007 ADMINORDER 2007-0556-AGR-E

Classification: Major

Citation: 30 TAC Chapter 321, SubChapter B 321.42(s)

Description: Failure to develop and operate under a comprehensive nutrient management plan (CNMP) certified by the Texas State Soil and Water Conservation Board by December 31, 2006.

B. Any criminal convictions of the state of Texas and the federal government.

N/A

C. Chronic excessive emissions events.

N/A

D. The approval dates of investigations. (CCEDS Inv. Track. No.)

1	08/31/2000	(236800)
2	05/25/2001	(39452)
3	06/22/2001	(39466)
4	03/21/2003	(26885)
5	03/12/2004	(265456)
6	07/28/2005	(401378)
7	04/06/2006	(456857)
8	11/22/2006	(519342)
9	03/15/2007	(543158)
10	11/26/2007	(601147)
11	12/21/2007	(611849)
12	05/29/2008	(681331)
13	10/31/2008	(703453)

E. Written notices of violations (NOV). (CCEDS Inv. Track. No.)

Date: 08/05/2005 (401378) CN602649568
Self Report? NO Classification: Minor
Citation: 30 TAC Chapter 321, SubChapter B 321.41(a)(1)
Description: Failure to complete Required DOPA training.
Date: 11/26/2007 (601147) CN602649568
Self Report? NO Classification: Moderate
Citation: 30 TAC Chapter 321, SubChapter B 321.39(f)(18)
Description: Failure to perform a five-year site evaluation.

F. Environmental audits.

N/A

G. Type of environmental management systems (EMSs).

H. Voluntary on-site compliance assessment dates.

N/A

I. Participation in a voluntary pollution reduction program.

N/A

J. Early compliance.

N/A

Sites Outside of Texas

N/A

EXHIBIT C

EXECUTIVE DIRECTOR'S

RESPONSE TO PUBLIC COMMENT

TCEQ INTRA-AGENCY TRANSMITTAL MEMO

DATE: April 7, 2009

TO: FINAL DOCUMENTS TEAM LEADER
OFFICE OF THE CHIEF CLERK
BUILDING F, MC-105

FROM: ALICIA LEE
ENVIRONMENTAL LAW DIVISION
BUILDING A, MC-173

Attached: Executive Director's Response to Public Comment

Application Information
Program Area (Air, Water or Waste): Water
Permit No. WQ0004136000 Name: Cottonwood Auction Barn, L.L.C. Docket/CID Item # (if known): _____

OCC Action Required *(check applicable boxes)*
Date stamp and return copy to above-noted ELD Staff Attorney and:

FOR ALL PROGRAM AREAS: *(required only when changes needed to official agency mailing list)*

☐ **Update** the mailing list in your file with the attached contact names and addresses
Include corrected or additional names and addresses for mailing list

FOR WASTE & WATER:

X Send Response to Comments Letter which solicits hearing requests and requests for reconsideration to the mailing list in your files
For Waste and Water this would occur in all circumstances when comments have been received for 801 applications
Or

☐ Send Response to Comments Letter and Motion to Overturn Letter which solicits motions to overturn to the mailing list in your files
For Waste and Water this may occur when all comments have been withdrawn for 801 applications or when comments are received for applications that will not be set for agenda.

FOR AIR (NSR only):

☐ Send RTC with response to comments letter which solicits contested case hearing requests and requests for reconsideration to the mailing list in your files
For Air NSR applications this would occur only when there are pending contested case hearing requests (except no-increase renewals)

☐ Set for commission agenda and send RTC with agenda setting letter
This would occur when there are pending contested case hearing requests on a no-increase renewal and technical review is complete.

☐ Hold until a commission agenda date is requested and then send RTC with the Agenda Setting Letter
For Air applications this would occur when there are pending hearing requests on a no-increase renewal; but technical review is NOT complete. If this box is checked, ED staff must call the OCC Agenda Team Leader to arrange a specific agenda date.

☐ Place RTC in File - no further action required by OCC
For Air NSR applications this would occur when the matter is uncontested but comments were received, APD will send a copy with MTO letter

☐ Other Instructions: _____

TPDES PERMIT NO. WQ0004136000

APPLICATION BY	§	BEFORE THE TEXAS
COTTONWOOD AUCTION	§	COMMISSION ON
BARN, L.L.C.	§	ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the LCS Corrections Services, Inc. (Applicant) application and Executive Director's preliminary decision. As required by 30 Texas Administrative Code (TAC) (§) Section 55.156, before a permit is issued, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk timely received comment letters or comments at the public meeting from the following persons: Lloyd Gosselink on behalf of the City of Waco (City), and Lowerre, Frederick, Perales & Allmon on behalf of Dr. Pritchy Smith. This response addresses all such timely public comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.state.tx.us.

BACKGROUND

Description of Facility

The Applicant has applied to the TCEQ to renew its Texas Pollutant Discharge Elimination Permit (TPDES) No. WQ0004136000 to authorize the operation of an existing Concentrated Animal Feeding Operation (CAFO) at a maximum capacity of 1,800 head.

The facility is located on the south side of State Highway 6, approximately 4.2 miles east of the intersection of Farm-to-Market Road 219 and State Highway 6 in Dublin, Erath County, Texas. The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

Procedural Background

The permit application was received on June 1, 2005 and declared administratively complete on August 5, 2005. The Notice of Receipt and Intent to Obtain a Water Quality Permit was published in *The Stephenville Empire Tribune* on August 9, 2005. The Notice of Application and Preliminary Decision for a Water Quality Permit was published in *The Stephenville Empire Tribune* on August 27, 2008. The public comment period ended on September 26, 2008. This application is subject to House Bill 801, 76th Legislature, 1999.

COMMENTS AND RESPONSES

COMMENT 1:
Dr. Smith is concerned that the Applicant has not met its burden in regards to nuisance odors.

RESPONSE 1:
The draft permit does not provide air authorization. The Applicant must comply with 30 TAC § 106.161, pertaining to Animal Feeding Operations, Permits by Rule, which states that operations have to be designed to feed no more than 1,000 cattle. The Applicant must comply with the air standard permit by rule found in 30 TAC § 321.43, unless an individual air authorization is obtained. Special Provision J is in the draft permit to address this issue.

> The permittee cannot exceed 999 total head at any one time until individual air authorization is obtained under 30 TAC 116 because of the occupied residence within the 0.25 mile buffer zone.

COMMENT 2:
Dr. Smith comments that the facility is located in the drainage area of the North Bosque River in Segment 1226 of the Brazos River Basin. He states that this segment has been recognized as out of compliance for state water quality standards regarding algal growth and bacteria. He further states that TCEQ has acknowledged that, "water quality concerns in the North Bosque River watershed are largely associated with animal feeding operations." He finally states that Phosphorus has been identified as the pollutant most directly responsible for algal blooms in this river, and that waste from CAFOs in the watershed is also largely responsible for bacteria problems in the river. Dr. Smith questions whether the proposed permit is consistent with the TMDL I-Plan.

RESPONSE 2:
TCEQ established rules to implement the North Bosque TMDL I-Plan and the draft permit is consistent with those rules. The special rule requirements that pertain to North Bosque dairy CAFOs are found in 30 TAC § 321.42 TCEQ rules and permit requirements are consistent with or more stringent than the federal rules and national guidance. TCEQ has performed TMDL evaluations sufficient to satisfy federal requirements and to justify implementing the new CAFO regulations. The draft permit is consistent with the Bosque TMDL, TMDL I-Plan, and CAFO rules in 30 TAC, Chapter 321. The draft permit for the Applicant was approved by EPA on August 29, 2008.

COMMENT 3:
The City comments that the application fails to properly calculate runoff from the design rainfall event, noting errors in land use condition, antecedent runoff condition, roof acreage, and RCS surface area.

RESPONSE 3:
As noted in the comment letter, the Applicant uses Texas Engineering Technical Note 210-18-TX5 (TX5), which is considered acceptable for calculating runoff. TX5 establishes criteria to evaluate hydrologic conditions. A rating of "Good" is reflective of vegetation covering 75% or

more of the ground surface, a rating of "Fair" is reflective of vegetation covering 50-75% of the ground surface, and a rating of "Poor" is less than 50% of vegetation covering the ground surface. The condition of vegetation is highly variable, based on season and annual rainfall. The application represents the current conditions determined by the engineer's site evaluation and/or the proposed condition that the Applicant intends to maintain during the term of the permit.

TX5 allows the use of the adjusted average condition runoff curve number procedure. The Applicant used a more conservative adjusted average condition runoff curve number equation for the location of the facility than prescribed by TX5. The ED determined that runoff was calculated using NRCS standards, in accordance with the rules.

The use of zero roof area contributing runoff to the RCS is acceptable even with shade areas and other roof areas located within the drainage area. Runoff from these roof areas does not go directly into the RCSs, instead, it runs off of the roof and over the land surface prior to entering the RCS. The roof area is included in the acreage for open lots where a CN of 90 was used. The curve numbers used for these areas are then applied to the roof area. A runoff curve number of 90 is acceptable for open lot surfaces with some roof and concrete areas.

The 2.54 acres in the design calculations for the permit application is derived by actual onsite measurement and correlates to the value represented in the stage storage table in the application. The ED determined that the surface area used in the application is appropriate.

COMMENT 4:
The City comments that the applicant overestimated the acreage of LMU #1 by three acres.

RESPONSE 4:
Technical review of the application using ArcView GIS supports the acreage of LMU #1 found in the application and draft permit.

COMMENT 5:
The City comments that the application fails to provide information on a composting area on page 6 of the Technical Information Packet and therefore, the draft permit in Section VII.A.5 should prohibit the placement of any composting area within the drainage area of the RCS.

RESPONSE 5:
The site map submitted with the permit application identified a compost area between the Auction Barn and State Highway 6. Since composting will be conducted outside of the drainage area, berms must be constructed to contain any runoff. The permit only authorizes discharges from a properly designed, constructed, operated, and maintained RCS in the event of chronic or catastrophic rainfall events, or catastrophic conditions that cause an overflow. Discharges are not authorized under any circumstances from berms surrounding compost areas.

COMMENT 6:
The City comments that the historical waste application fields should be identified in the application or the permit.

RESPONSE 6:
Section VII.A.9(b)(2) of the permit requires the Applicant to have soil samples collected annually for each current and historical LMU. This provision tracks the requirement in 30 TAC § 321.42(k) that historical waste application fields must be sampled every year, regardless of whether the Applicant eliminates them from the permit.

Special Provision X.N. in the permit requires the Applicant to maintain a map in the PPP which identifies the location of all historical LMUs and reads as follows: "A LMU map showing historical LMUs shall be maintained in the PPP." Fields no longer associated with the dairy facility (historical LMUs) may be used as third party fields so long as all third party requirements in TCEQ rules are met.

COMMENT 7:
The City is concerned that the draft permit does not require a stage/storage table to calculate the effect of evaporation on the monthly water balance. The City requests that Section VII.A.5(a)(2)(iv) should be revised as follows: "a stage/storage table for each RCS with minimum depth increments of one foot, including the storage volume and surface area provided at each depth."

RESPONSE 7:
The surface area of a RCS is the factor used in designing the required capacity. The expected evaporation surface area used in the water balance was taken as a percentage of the total top of the berm surface area. Surface area will also be a factor in calculating the volume at each depth increment in the stage/storage table for the RCS management plan. For operational purpose, it is the volume measurement at each depth increment that needs to be known, not the surface area.

COMMENT 8:
The City comments that the draft permit does not require an RCS Management Plan until after the RCS is modified. The City comments that this does not allow for meaningful staff or public review before the plan is implemented. At a minimum, the City recommends revising the draft permit to require the RCS Management Plan to be submitted to TCEQ permitting staff when completed for review and approval. Additionally, the City comments that the draft permit does not appear to require an RCS Management Plan for the existing RCSs before the permit is issued. The City notes that this seems inconsistent with the requirement of 30 TAC § 321.42(g), which requires an RCS Management Plan for all RCSs.

RESPONSE 8:
The CAFO rules at 30 TAC § 321.42(g) and the draft permit require that the Applicant implement an RCS management plan and maintain a copy in the PPP. TCEQ rules do not require review of RCS management plans prior to or after issuing the permit. This requirement is being implemented through issuance of the permit. *See* 30 TAC § 321.42(a). Until the actual expansion and modification of the RCS is completed and the volume certified, which takes place after the permit is issued, the RCS management plan cannot be completed and implemented.

The purpose of the RCS management plan is to assist the operator with proper management of the RCS system and to provide information for the TCEQ regional inspectors to determine if the

system is being operated in compliance with the permit and the design of the RCS. Submittal of the RCS management plan is not necessary to achieve these purposes.

The draft permit does require an RCS management Plan for all RCSs authorized in the draft permit. The Applicant has 180 days from the date the permit is issued to make RCS modifications.

COMMENT 9:
The City comments the Applicant calculated the sludge accumulation volume from open lot runoff based on 25% of the runoff from the 25-year, 10-day rainfall event and that there is no technical or historical data to justify this value.

RESPONSE 9:
Sludge accumulation volume requirements for sludge accumulation from runoff have been estimated as 25% of the 25-year, 24-hour runoff volume from open lot areas. The draft permit uses the calculated 10-year sludge volume as a 5-year design volume. It also uses the 25-year, 10-day storm event, which further increases the design volume of the RCS. The method used by the Applicant is one of a limited number of methodologies and is considered acceptable for use in Texas.

COMMENT 10:
The City comments that the existing permit issued December 13, 1999 requires an RCS with a capacity of 4.02 acre-feet. The engineering certification dated February 28, 2007 indicated that the capacity is 2.46 acre-feet. The Applicant may be enlarging the RCS, but it may take up to a year to accomplish. The TCEQ should consider requiring in the draft permit that the existing RCS at least meet the current permit requirements until the new RCS is constructed. Otherwise, the Applicant has presented no information demonstrating that the facility will be able to contain runoff from major rainfall events.

RESPONSE 10:
Existing RCS volume requirements are contained in the existing authorization and are enforced under that authorization by TCEQ Field Investigators. If the draft permit is issued, the new 25-year, 10-day volume allocation requirements will take effect and construction will be required to meet those allocations within 180 days. The required minimum volume allocations are shown in Section VII. X.A.1. of the draft permit. Section VII.A.3.(a) of the draft permit requires that after completion, liner and capacity certifications for new construction be maintained in the PPP.

COMMENT 11:
The City comments that the draft permit should be amended to require annual determination of sludge accumulation instead of three years following permit issuance.

RESPONSE 11:
30 TAC § 321.39.c and Section VII.A.4(a)(7) of the draft permit prohibit the Applicant from allowing sludge accumulation to exceed the design volume. This is achieved by removing the sludge according to the design schedule. The design criterion for this dairy is 21 years of accumulation. The RCS management plan will establish accumulation rates in the RCS, which

will identify the current sludge volume in the RCS. Taking volume measurements starting in year three will help reevaluate the accumulation rates prior to reaching the 21-year design volume.

By starting measurements in year three, the operator will have time to complete modification and expansion of RCS; and to develop and implement an RCS management plan to appropriately manage the sludge volume in the ponds. Furthermore, taking daily pond marker readings should assist in determining excessive sludge accumulation in the RCS.

COMMENT 12:
The City comments that the draft permit language for the required RCS capacity certification under provision VII.A.3(a)(2) should make clear that all capacity certifications require certification of both total as-built capacity and the remaining capacity as a result of sludge accumulation. This could be addressed by incorporating the following provision into the terms of the draft permit: "Capacity certifications shall include both the total as-built RCS capacity and the remaining RCS capacity due to sludge accumulation."

RESPONSE 12:
Capacity certifications reflect the total as-built capacity. This maximum volume does not change, unless modifications are made to the RCS. Sludge accumulations, on the other hand, fluctuate, just as the wastewater levels fluctuate. Sludge accumulations are required to be monitored and recorded in the PPP, as necessary, but at least annually beginning in year three of the permit and then annually thereafter.

COMMENT 13:
The City comments that the draft permit should include a specific list of circumstances that would qualify for granting extensions to the RCS compliance schedule.

RESPONSE 13:
The conditions that may delay construction of a RCS are numerous and highly variable. The extension request must provide an explanation of the conditions that prevented construction during the specified timeframe. The ED will evaluate the specific reasons to determine if an extension should be granted.

COMMENT 14:
The City comments that according to the submitted liner certification for the RCS, the certification was based on samples taken in the bottom of the RCS. Since samples were not taken in the embankments, the embankments may not meet the criteria at all, and there is no data to support a finding that there will not be leakage from the RCS. Before the permit is issued, proper certification should be performed verifying that both the embankments and bottom of the RCS meet criteria.

RESPONSE 14:
The liner certification for RCS #1 was completed in July 2000. The rules in place at that time did not require the sample locations to be identified. Neither the rules nor the current permit, issued December 13, 1999, require a minimum number of samples or sample locations. The ED

determined that the liner certification for RCS #1 met the applicable rule requirements at the time of certification.

COMMENT 15:
The City recommends that in addition to the compaction testing requirement at Section VII.A.3(f)(4) of the draft permit that TCEQ should also require the following: 1) requiring the field density tests be based on predetermined moisture density compaction curves, 2) defining the frequency of testing, 3) requiring compaction testing on each lift during construction of the liner, 4) requiring documentation of compaction test locations and results provided to TCEQ, and 5) requiring continuous on-site inspection during construction.

RESPONSE 15:
Section VII.A.3(b) of the permit requires that the RCS be designed and constructed in accordance with the technical standards developed by NRCS, ASABE, ASCE, or ASTM. Additionally the permit identifies specific RCS design, construction, and testing criteria in Section VII.A.3. The construction and testing requirements for embankment lifts are in Section VII.A.3.(f)(2) and are as follows:

> Embankment Lifts. The embankment shall be constructed in lifts or layers no more than eight (8) inches compressed to six (6) inches thick at a minimum compaction effort of 95 percent (%) Standard Proctor Density (ASTM D698) at -1% to +3% of optimum moisture content.

The compaction testing requirements are in Section VII.A.3.(f)(4) and are as follows:

> 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, or D 6938 for moisture and density. Compaction tests will provide support for the liner certification performed by a licensed Texas professional engineer as meeting a permeability no greater than 1×10^{-7} centimeters per second (cm/sec) over a thickness of 18 inches or its equivalency in other materials.

More specific liner requirements are included in Section VII.A.3(g) of the permit. The liner must be designed by a licensed Texas professional engineer and documented to have hydraulic conductivities no greater than 1×10^{-7}cm/sec in accordance with ASTM D 5084, or other method approved by the ED, with a thickness of 18 inches or greater or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1×10^{-6} cm/sec with a water level at spillway depth.

COMMENT 16:
The City comments that the permit application does not provide an adequate description of the structural controls, particularly the berms and ditches.

RESPONSE 16:
A Runoff Control Map was submitted by the Applicant that clearly identifies the control features directing run-off. This map shows a thick dashed line identified as the berm.

The permit only authorizes discharges from a properly designed, constructed, operated, and maintained RCS in the event of chronic or catastrophic rainfall events or catastrophic conditions that cause an overflow. Discharges are not authorized under any circumstances from diversion structures.

The permit requires the Applicant to conduct weekly inspections on all control facilities, including the RCS, stormwater diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated stormwater to the RCS; and to annually conduct a complete site inspection of the production area. Additionally, the draft permit requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years.

COMMENT 17:
The City comments that the Applicant has failed to demonstrate the adequacy of its dewatering capability and it asks the ED to verify the dewatering capabilities of the equipment listed in the application.

RESPONSE 17:
TCEQ rules do not require ED review or approval of the equipment an applicant will use to dewater the RCS. The draft permit requires that the Applicant ensure that the irrigation system design is capable of removing wastewater from the RCS on a regular schedule. Equipment capable of dewatering the RCS must be available and operational whenever needed to restore the operating capacity required by the RCS management plan. This gives the Applicant flexibility on the type of equipment to be used at the time of dewatering.

COMMENT 18:
The City comments that the draft permit does not require the annual facility inspection report or five year evaluation to be sent to TCEQ as required by 30 TAC §§ 321.46(c)(2) and (e)(2). The City states that submission to TCEQ should be required by the draft permit and not just maintained in the PPP.

RESPONSE 18:
The rules cited by the City do not require these records be submitted to TCEQ. However, 30 TAC § 321.46(d) requires that these records be maintained on site for a minimum of five years from the date the record was created and submitted to the Commission within five days upon written request by the ED. These records should be maintained in the PPP where they are subject to review during site inspections conducted by TCEQ field staff. Failure to conduct an annual site inspection or the five year evaluation; and to document the findings of both in the PPP or failure to correct the deficiencies identified would be a violation of the permit and rules subjecting the Applicant to potential enforcement action by the Commission.

COMMENT 19:

The City comments that the draft permit should be amended to require that an engineer certify to the adequacy of structural controls in the five year evaluation prior to issuance of the permit or immediately after the issuance of the permit. Additionally, the City comments that the Applicant should be required to provide a current certification of structural controls before the draft permit is issued.

RESPONSE 19:
The draft permit will require a licensed Texas professional engineer to review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner and RCS capacity documentation, and complete and certify a report of their findings. The site evaluation would be a comparison of what is required by the engineering documentation and the actual structural controls, as constructed, operated, and maintained. Should the engineer determine that the structural controls are inadequate with respect to the design requirements in the engineering documentation, those findings would be included in the certified report. Licensed Texas professional engineers are subject to standards of performance as established by the Texas Board of Professional Engineers. These permit provisions become effective upon issuance of the draft permit.

The issuance of the permit will implement the requirement to conduct the five year evaluation once every five years. Thus the Applicant will be required to conduct the evaluation within five years of permit issuance, then every five years thereafter.

The permit only authorizes discharges from a properly designed, constructed, operated, and maintained RCS in the event of chronic or catastrophic rainfall events, or catastrophic conditions that cause an overflow. Discharges are not authorized under any circumstances from diversion structures.

The permit requires the Applicant to conduct weekly inspections on all control facilities, including the RCS, stormwater diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated stormwater to the RCS; and to annually conduct a complete site inspection of the production area. Additionally, the permit requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years.

COMMENT 20:
The City comments that the draft permit fails to require adequate sampling of wastewater and manure, with respect to sample collection and frequency, and the approximate locations or time of year that soil tests will be taken.

RESPONSE 20:
The permit provisions for sampling and monitoring are consistent with 30 TAC § 321.36(e) and (g); and with the requirements of NRCS Practice Standard Code 590. The draft permit requires that representative samples be collected annually for manure, wastewater, and soils. The results of the analyses must be used in determining application rates. Because they are used in determining application rates, the sample collection should be representative of the material, as applied. If manure and wastewater samples are not representative of the materials, as applied,

the following year's soil analyses may be higher than expected. This in turn would result in a reduced application rate.

NRCS Practice Standard Code 590 requires the approximate locations where soil tests will be taken and the timing and frequency of soil sampling. Page 7 of the NMP, in the permit application, states the location as "each field" and frequency as "annually." These statements comply with 30 TAC § 321.36(g) and Section VII.A.9.(b) of the draft permit.

COMMENT 21:
The City comments that the manure production tables in the application indicate that the total phosphorus produced by the proposed 1,800 cows is 163 lb/day P_2O_5. This is equivalent to 59,495 lb/yr P_2O_5. The NMP indicates that the amount of phosphorus to be applied to the LMUs or third-party fields is only 23,125 lb/yr P_2O_5. So, the Applicant does not account for 36,470 lb/yr P_2O_5 or 61.3% of the phosphorus generated.

RESPONSE 21:
The permit application identifies how much phosphorus is generated and the methods used to utilize or dispose of it. It is projected that 1,800 cows will generate 163 lbs of phosphorus per day. The calculation is based on a book value for phosphorus production by dairy cows developed by the American Society of Agricultural and Biological Engineers. It is part of a set of data intended for use in designing facilities to accommodate actual waste production. As long as the phosphorus being land applied or hauled-out is accounted for as required under TCEQ rules, an accounting to reflect what remains in the CAFO production area is not necessary.

COMMENT 22:
The City notes that the draft permit allows the Applicant to apply up to 100% of the phosphorus within the watershed. The City recommends that the draft permit be revised to require that up to 50% of the waste generated by the proposed operation be managed outside of the North Bosque watershed in a manner that is consistent with the goals of the applicable TMDL.

RESPONSE 22:
The North Bosque TMDL has a goal of a 50% reduction in instream loading. The TMDL and TMDL I-Plan address growth of CAFOs through BMPs designed to decrease instream loading. Neither the TCEQ rules nor the TMDL I-Plan requires a 50% haul-out of collectible manure.

COMMENT 23:
The City comments that multiple NMP's have been submitted and that the draft permit should state the date of the most recent NMP that the facility will operate under for the year following permit issuance.

RESPONSE 23:
In response to comment the date of the most recent NMP has been added to Section V of the Fact Sheet.

COMMENT 24:
The City comments that the Applicant should be required to submit to TCEQ the actual annual yields of harvested crops for both LMUs and third party fields to demonstrate that reasonable crop yields are being used. Alternatively, Waco requests that Section VII.8(e)(5)(iv) be revised to clarify the methods that TCEQ will employ to determine compliance in the absence of any annual harvested yield reporting.

RESPONSE 24:
Section VIII.A.4 requires the Applicant to update records annually to include actual annual yield of each harvested crop for each LMU. The information is available to the ED during field investigations. Crop removal rates are based on yields when the NMP software is used.

The draft permit allows the Applicant to provide wastewater, sludge and/or manure to third-party fields. The third party field operators must adhere to the contract requirements outlined in the draft permit, which include land application at an agronomic rate based on soil test phosphorus. The draft permit establishes a three tiered approach to application rates on third-party fields. The proposed crop and yield goal are used by the third-party operator to determine the application rates. In the event that the yield goal is not achieved, the soil test results will be higher than expected. If soil test results reach 200 ppm, the Applicant cannot provide wastewater, sludge and/or manure to that third-party field operator. Based on these requirements, the ED disagrees that submitting crops and yields on third-party fields is necessary.

COMMENT 25:
The City comments that NMP does not account for the nutrients available to plants in the root zone to satisfy the crop requirement. The City comments that the NMP should be revised to allow application of only that quantity of nutrients that will benefit optimum crop production.

RESPONSE 25:
NMPs are developed in accordance with NRCS Practice Standard Code 590. NMPs evaluate nutrients in the soil as part of the Phosphorus Risk Index. The allowable application rate, as determined by the NMP, takes both risk factors and soil phosphorus levels into account.

COMMENT 26:
The City comments that the draft permit allows land application on land exceeding 200 ppm of phosphorus. The North Bosque River TMDL Implementation Plan ("TMDL I-Plan"), dated December 2002 (p.16), provides that formal enforcement action will result if CAFOs "apply waste or wastewater to a WAF that has been documented to have exceeded 200 parts per million phosphorus in Zone 1 of the soil horizon." Section VII.A.8(c)(2) of the draft permit appears to be inconsistent with the TMDL I-Plan. Dr. Smith is concerned about the impact to water quality downstream of the CAFO, and how the water quality will impact the existing uses of the receiving stream. Dr. Smith is concerned that the permit may not adequately control contamination from increased Phosphorus in the receiving waters.

RESPONSE 26:
The draft permit requirements are consistent with TCEQ rules relative to phosphorus reduction in waste application fields. The use of phosphorus based assessments requires action on fields exceeding 200 ppm. All waste application is limited under the permit provisions to avoid significantly increasing phosphorus runoff into the North Bosque River. An LMU that reaches 200 ppm of phosphorus triggers the NUP requirement. *See* 30 TAC § 321.40(k)(3) and Section VII.A.8(c) of the draft permit. A NUP must be approved by the ED prior to land application of any additional manure, sludge, or wastewater to the LMU. For third party fields, there is no NUP requirement, but land application of all manure, sludge, or wastewater must cease when a field reaches a phosphorus level of 200 ppm or higher.

The table below illustrates numbers from the Applicant's NMP to compare the maximum application rate versus the proposed application rate. The plan is based on a goal of maintaining soil test phosphorus levels below 200 ppm, which results in a planned application amount that is less than the maximum allowed under the East Texas Phosphorus Index (application on all LMUs, collectively). NMPs are routinely updated and the values shown below are subject to change.

LMU #	Soil Test P (ppm)	Max Annual P_2O_5 (lbs/ac)	Proposed Annual P_2O_5 (lbs/ac)	% of Max Allowable
1	10	219	<1	0.1
2	21	265	244	99

Page 16 of the TMDL I-Plan for the North Bosque does read as indicated by Waco. However, immediately following this statement the document states that more information is available in the section entitled "Enforcement Program." In that section of the TMDL I-Plan, it states that owners of facilities would be subject to enforcement if they performed land application on fields where soil phosphorus exceeded 200 ppm, unless land application was done according to an approved NUP.[1] This is consistent with TCEQ rules that require an approved NUP prior to any additional land application on LMUs that exceed 200 ppm of phosphorus and prohibit land application on third party fields that exceed that amount.

COMMENT 27:
Waco comments that the draft permit should be revised to prohibit waste application onto non-cultivated fields. At minimum, Waco encourages TCEQ to prohibit application of manure on non-cultivated fields within 500 feet of a stream. In addition, Waco comments that a specific permit provision be added to require adherence to NRCS Code 590 on third party fields if it is more restrictive and that TCEQ should require NMPs for third party fields.

RESPONSE 27:
The ED declines to make the requested change because the CAFO rules do not require that land application on third party fields be consistent with the NRCS Practice Code 590. However, the limitations placed in the draft permit assure that application on third party fields will take into

1 See "An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque Watershed," December, 2002, page 39:

account the potential for phosphorus build-up to occur. Land application on third party fields may not exceed a maximum of 200 ppm of phosphorus. When a third party fields tests 200 ppm or higher for phosphorus, all land application on that field must cease.

The application limitations on third party fields are based on soil test phosphorus levels instead of the Phosphorus Risk Index. The restrictions are more conservative than the rules require. Similar to an NMP, as soil phosphorus levels increase on third party fields, the Applicant will have to reduce waste application rates in order to continue land applying on those fields and to prevent those fields from exceeding 200 ppm of phosphorus.

Section VII.A.8(e)(5) provides the requirements for third-party fields. These provisions apply to cultivated and non-cultivated fields, with the exception of (5)(i)(B), which is specific to non-cultivated fields. Cultivated fields are fields used for row cropping that require the ground to be tilled, disced, or plowed to prepare for seed planting, such as corn, wheat, and oats. Non-cultivated fields are used to grow plants that do not require the ground to be tilled, disced, or plowed, such as Bermuda grass or native grasses. If the requirement in (5)(i)(B) to incorporate manure and sludge was applied to non-cultivated fields, the vegetation would be significantly damaged, thus reducing the yield goal and nutrient uptake. The ED finds that the permit has adequate provisions related to land application on both cultivated and non-cultivated third-party fields.

Section VII.A.8(e)(5)(i)(A) of the permit requires that land application to third-party fields be conducted in accordance with the applicable requirements in 30 TAC § 321.36 and § 321.40. 30 TAC § 321.40(h) requires that "vegetative buffer strips shall be no less than 100 feet of vegetation to be maintained between manure, litter, or wastewater application areas and water in the state. The CAFO operator shall maintain the buffer strips in accordance with NRCS guidelines.

COMMENT 28:
The City comments that draft permit provision VII.A.7(e)(5) allows sludge to be applied to third-party fields. The City states that this provision appears to be inconsistent with 30 TAC § 321.42(j), which allows only manure, litter, and wastewater to be applied to third-party fields.

RESPONSE 28:
30 TAC § 321.32(49) defines sludge as solid, semi-solid, or slurry waste generated during the treatment of and/or storage of any wastewater. The term includes materials resulting from treatment, coagulation, or sedimentation of waste in a retention control structure. Waste is defined as manure (feces and urine), litter, bedding, or feedwaste from animal feeding operations. Therefore permit requirements applicable to manure are inclusive of sludge, except as noted in the permit.

Appropriate utilization of the nutrients is tied to the BMPs used and is not based on nutrient source. These BMPs include, but are not limited to, land application at agronomic rates and hydrologic needs of the crop, adherence to buffers between land application areas and water in

the state, and the prohibition of discharges from land application areas. Land application on third party fields is not only limited to agronomic rates, but is further limited by soil test phosphorus ranges. For example, land application rates may not exceed the crop nitrogen requirement when soil phosphorus concentration in Zone 1 is less than or equal to 50 ppm phosphorus. Ultimately, land application on third party fields is prohibited once the soil test phosphorus level is equal to or greater than 200 ppm.

COMMENT 29:
The City comments that the draft permit fails to require a demonstration of sustainability for the term of the permit.

RESPONSE 29:
30 TAC § 321.36(d)(2) and Section VII.A.7(a) of the draft permit requires the operator to create and maintain a site-specific NMP along with documentation regarding implementation of the plan. This section also requires annual sampling and the NMP must be updated to modify application amounts based on soil testing and wastewater and manure testing. A five-year NMP would be impracticable because the NMP is likely to change yearly due to changing climatic and operational conditions; and soil sampling results. It is important that NMPs remain flexible. When the NMP is updated, the new version should be kept in the PPP documentation and available to TCEQ personnel during field investigations.

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

COMMENT 30:
The City comments that the draft permit fails to provide a meaningful definition of vegetative buffers. The City recommends adding the following sentence to Section X.D.: A vegetative buffer shall meet the criteria of Riparian Forest Buffers defined by NRCS Practice Code 391 or the criteria of Vegetative Filter Strips as defined by NRCS Practice Code 393.

RESPONSE 30:
30 TAC § 321.40(h) requires that "vegetative buffer strips shall be no less than 100 feet of vegetation to be maintained between manure, litter, or wastewater application areas and water in the state. Although not defined by TCEQ rules, vegetative buffers are commonly understood to mean vegetation that reduces shock due to contact. NRCS Practice Code 393 refers to Practice Code 391, *Riparian Forest Buffer*. Riparian forest buffers are areas predominantly in trees or shrubs located adjacent to and up-gradient from watercourses or water bodies. One of the purposes of a riparian forest buffer is to reduce excess amounts of sediments, organic material, nutrients, and pesticides in surface runoff. This purpose is the same as that performed by vegetative filter strips according to NRCS Practice Code 393. Citing the practice code is adequate for permit requirements. The practice standard has an adequate definition and the ED made no change in response to the comment.

COMMENT 31:
The City comments that the draft permit fails to clearly define the measurement of the vegetative buffers and filter strips, in relation to the stream, e.g., from the banks of the stream and not the centerline of the stream.

RESPONSE 31:
The ED agrees that the measurement of the vegetative buffers and filer strips should be done from the banks of a stream, not from the center of the stream. Filter strips,[2] vegetative buffers, and riparian forest buffers are, by definition, vegetated strip flow lengths. These vegetated strips can only exist as close as the normal water line or at the top of the bank.[3] Because the Applicant has to maintain the distance from where the vegetation can be established, no definition is needed. Field marking of land application areas is not required by the regulations. The ED does not believe this definition needs to be added to the permit. It is logical that the appropriate set back distance can only be measured from the land surface not from the center of the stream.

COMMENT 32:
The City comments that appropriate provisions for containment from silage, commodity, and hay storage areas should be part of the application to determine if containment provisions are adequate.

RESPONSE 32:
Section X.I. of the draft permit requires that all runoff from silage, commodity, and hay storage outside the RCS drainage area will be contained and that appropriate provisions for that containment be stated in the PPP upon issuance of the permit. The draft permit does not authorize any discharge from the silage, commodity, or hay storage areas located outside the drainage area of the RCS. The ED believes these permit provisions are sufficient to reduce and/or prevent impacts to water quality from these areas.

COMMENT 33:
The City comments that the draft permit should be amended to include additional provisions that address control of pathogens. Dr. Smith is concerned that the permit may not adequately control contamination from pathogens and bacteria. Dr. Smith is concerned that pathogens and algal blooms will negatively affect his health and the health of his family.

RESPONSE 33:
40 CFR § 122.44(k)(3) allows states to use BMPs to control or abate discharges "when numeric effluent limitations are infeasible." This also applies to bacteria. In the case of North Bosque dairies, they are only authorized to discharge in the event of a chronic or catastrophic rainfall event that exceeds the 25-year, 10-day storm event. Since discharges are not allowed except in the event of a chronic or catastrophic rainfall, there are no bacteria discharged from the control facilities except during chronic or catastrophic rainfall events. If such an event occurs, the

2 Filter strips are an area of herbaceous vegetation.
3 Per Practice Standard Code 391.

amount of rainfall involved and any resulting discharge will be highly variable both in volume and concentration of waste. Discharges from chronic or catastrophic rainfall events are not comparable to the continuous discharges from municipal wastewater treatment plants or industrial facilities. A discharge during chronic or catastrophic rainfall events is authorized by EPA and TCEQ rules. The BMPs in place to limit the amount on nutrients applied to the LMUs also limit the amount of bacteria that can be applied. Therefore, bacteria applied to LMUs are limited by the BMPs that limit nutrient application.

The requirements in the draft permit satisfy this requirement because the North Bosque River TMDLs are intended to achieve significant reductions in the annual average concentrations and total annual loading of soluble phosphorus in the river. The TMDLs are designed to do this by focusing on controlling soluble phosphorus loading and in-stream concentrations to protect designated uses. The management measures for controlling phosphorus loading will also have some corollary effect on reducing pathogen and bacteria loading, since non-point source nutrient and pathogen loads largely originate from the same sites and materials; and are transported via the same processes and pathways. Other provisions in the rules and draft permit directed at reducing and minimizing all pollutants, including pathogens and bacteria, that are potential constituents of animal wastes include:

1. Requiring a larger RCS with capacity to contain a designed 25-year, 10-day rainfall event (approximately 60% larger than required to contain the 25-year, 24-hour rainfall event);
2. Establishing an RCS management plan;
3. Controlling runoff from manure piles by covering, berming, or requiring that they drain into an RCS;
4. Setting additional minimum buffer distances between land application units and surface water in the state;
5. Prohibiting nighttime land application between 12 a.m. and 4 a.m.; and
6. Requiring a NMP that uses phosphorus transport considerations to determine allowable applications of nutrients. The phosphorus index approach reduces allowable application of nutrients to levels that are appropriate for reducing and minimizing all pollutants that are constituents of animal wastes.

COMMENT 34:
The City comments that this CAFO has a history of not complying with its permit and the rules. The City states that it failed to construct an RCS with the capacity required by its existing permit, it failed to submit an engineering certification of structural controls, and it failed to submit an engineering certification of RCS capacity within 90 days of completion. The City states that great care should be taken in ensuring that the Applicant is capable of meeting its obligations of the draft permit before the TCEQ grants it any such authority.

RESPONSE 34:
During the technical review, a compliance history review of the Applicant and the site is conducted based on the criteria in 30 TAC, Chapter 60. The compliance history for the Applicant and site is reviewed for the five-year period prior to the date the permit application

was received by the ED. The compliance history includes multimedia compliance-related components about the site under review. These components include the following: enforcement orders, consent decrees, court judgments, criminal convictions, chronic excessive emissions events, investigations, notices of violations, audits and violations disclosed under the Audit Act, environmental management systems, voluntary on-site compliance assessments, voluntary pollution reduction programs and early compliance. The Applicant has a site compliance history classification of "average" and a numerical site rating of 9.23 as of September 1, 2008. The ED determined that it is not necessary to add special provisions to the draft permit to address compliance issues.

Changes made in response to comment

NMP date added to the Fact Sheet.

Respectfully submitted,

Texas Commission on Environmental Quality

Mark R. Vickery, P.G.
Executive Director

Robert Martinez, Director
Environmental Law Division

By _____
Alicia M. Lee, Staff Attorney
Environmental Law Division
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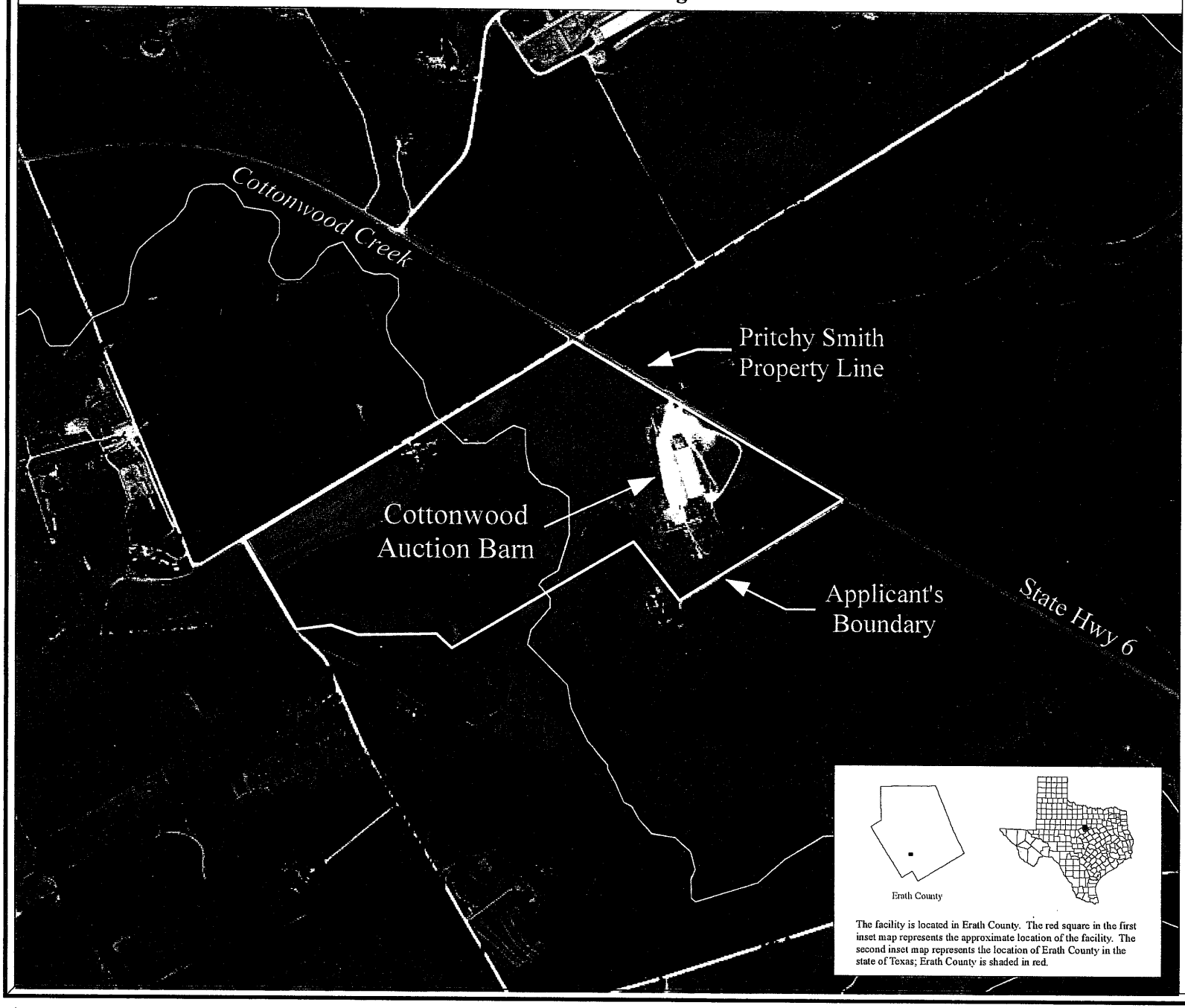
REPRESENTING THE
EXECUTIVE DIRECTOR OF THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

EXHIBIT D

MAP OF FACILITY

Cottonwood Auction Barn, LLC
Map Requested by TCEQ Office of Legal Services for Commissioners Agenda



The facility is located in Erath County. The red square in the first inset map represents the approximate location of the facility. The second inset map represents the location of Erath County in the state of Texas; Erath County is shaded in red.

Protecting Texas by Reducing and Preventing Pollution

TCEQ

Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087

May 14, 2009

0 0.1 0.2 Miles

Projection: Texas Statewide Mapping System (TSMS)
Scale 1:13,000

Legend

- Applicant's Property Line
- Pritchy Smith Property Line
- Creek

Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information and the requestor information from the applicant. The counties are U.S. Census Bureau 1992 TIGER/Line Data (1:100,000). The background of this map is a source photograph from the 2004 U.S. Department of Agriculture Imagery Program. The imagery is one-meter Color-Infrared (CIR). The image classification number is tx143_1-1.

This map depicts the following:
(1) The approximate location of the facility. This is labeled "Cottonwood Auction Barn".
(2) The applicant's property boundary. This is labeled "Applicant's Boundary".
(3) The requestor's property boundary. This is labeled "Pritchy Smith Property Line".

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This map was not generated by a licensed surveyor, and is intended for illustrative purposes only. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.

MMcDonough CRF-090513043

EXHIBIT E

AFFECTED LANDOWNERS

LIST AND MAP

ADJACENT LANDOWNERS LIST

Name Hidden View Dairy
Number on Map 1
Address 1684 Private Road 1401
Address Dublin, Texas 76446

Name
Number on Map
Address
Address

Name Pritchy Smith
Number on Map 2
Address 233 Orange Street
Address Neptune Beach, Florida 32233

Name
Number on Map
Address
Address

Name Martin Family Trust
Number on Map 3
Address 2241 County Road 304
Address Dublin, Texas 76446-7493

Name
Number on Map
Address
Address

Name Clifton W & Nancy A Wooldridge
Number on Map 4
Address 5170 County Road 303
Address Dublin, Texas 76446

Name
Number on Map
Address
Address

Name Elton & Natell Bills
Number on Map 5
Address 1299 County Road 279
Address Dublin, Texas 76446

Name
Number on Map
Address
Address

Name James & Jo Ann Black
Number on Map 6
Address 640 County Road 302
Address Dublin, Texas 76446

Name
Number on Map
Address
Address

Name Larry Dee & Carol Gibson
Number on Map 7
Address 1382 County Road 521
Address Dublin, Texas 76446

Name
Number on Map
Address
Address

Name Stephen B Francis
Number on Map 8
Address 4610 29th Street
Address Lubbock, Texas 79410

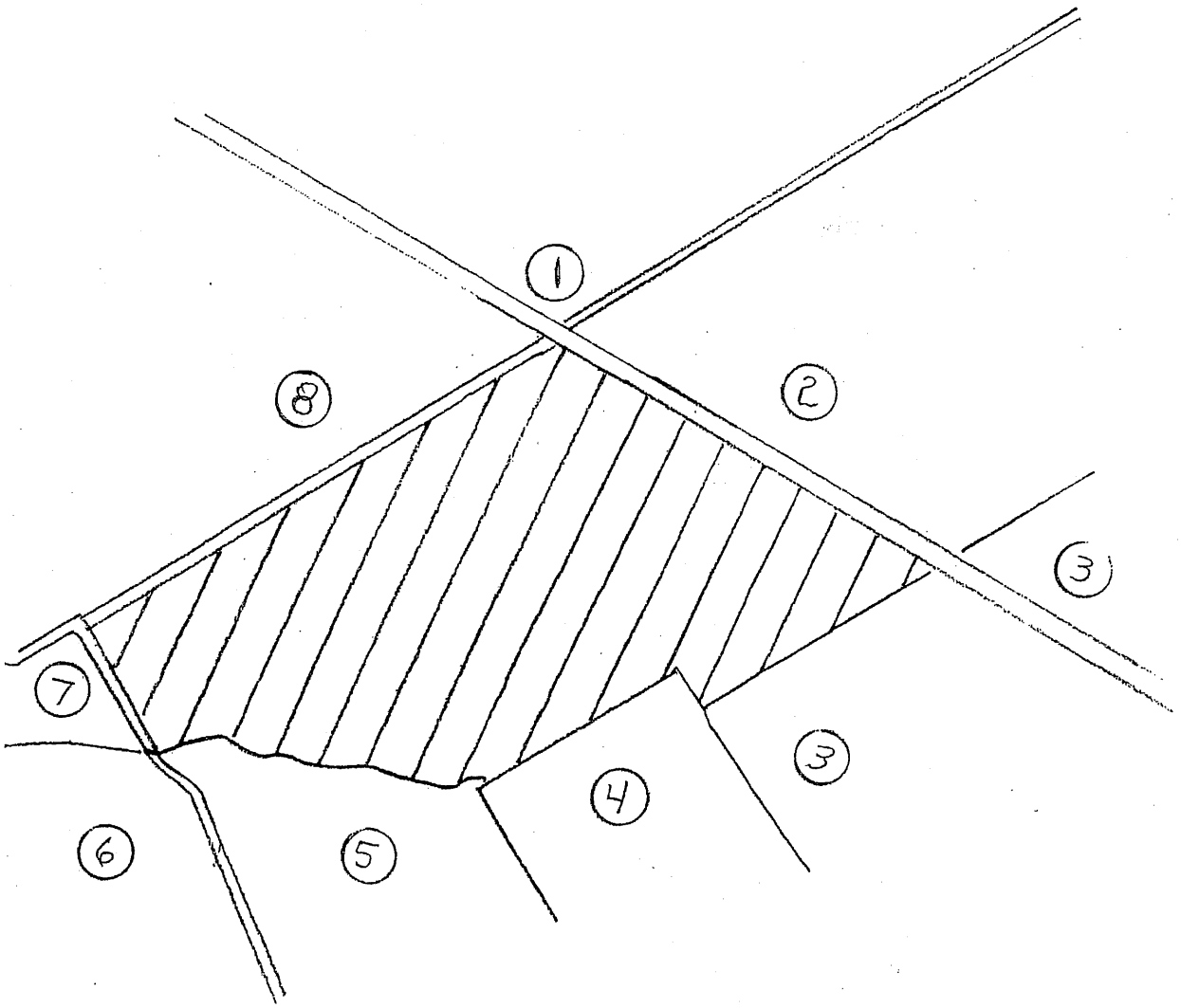
Name
Number on Map
Address
Address

Please identify where you obtained the landowner information.

Erath County Appraisal District

Attachment B
ADJACENT LANDOWNER'S LIST
COTTONWOOD AUCTION BARN

Facility Name Cottonwood Auction Barn



Attachment B.1
ADJACENT LANDOWNER'S MAP
COTTONWOOD AUCTION BARN

EXHIBIT F

FACT SHEET AND ED's

PRELIMINARY DECISION

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Permit No.: WQ0004136000

Owner: Cottonwood Auction Barn, L.L.C.

Regulated Activity: Concentrated Animal Feeding Operation; Auction Barn

Type of Application: Renewal

Request: Water Quality Authorization

Authority: Federal Clean Water Act - Section 402; Texas Water Code §26.027; 30 Texas Administrative Code (TAC) Chapters 39, 305, and 321 Subchapter B; and Environmental Protection Agency Guidelines

I. EXECUTIVE DIRECTOR'S RECOMMENDATION

The Executive Director has made a preliminary decision that this proposed permit, if issued, meets all statutory and regulatory requirements. The proposed permit shall be issued for a five year term in accordance with 30 Texas Administrative Code Chapter 305.

II. REASON FOR PROPOSED PROJECT

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for renewal of Texas Pollutant Discharge Elimination System Permit No. WQ0004136000 for a Concentrated Animal Feeding Operation (CAFO) to authorize the permittee to operate an existing auction barn facility at 1,800

III. PROJECT DESCRIPTION AND LOCATION

Maximum Capacity: 1,800 total head
Land Management Units (LMUs) (acres): LMU#1- 28, LMU#2- 49,

The table below indicates the volume allocations for the Retention Control Structure (RCS):

Volume Allocations for the RCS (Acre-feet)							
RCS #	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge Accumulation	Water Balance	Required Capacity without Freeboard	Actual Capacity without Freeboard
1	3.86	0	0	0.79	0.29	4.94	2.46

The volume allocations are determined using Natural Resource Conservation Service standards, American Society of Agricultural Engineers standards, and/or site specific data submitted in the permit application.

The Design Rainfall Event is the volume of runoff from the 25–year, 10–day storm event. The RCS is required to include adequate capacity to contain this amount of runoff as a margin of safety to protect against discharges during rainfall events that may exceed the average monthly values used to design the RCS, but do not constitute chronic or catastrophic rainfall. This volume allocation accommodates runoff from open lot surfaces, all areas between the open lots and the RCS, runoff from roofed areas that contribute to the RCS and direct rainfall on the surface of the RCS. Runoff curve numbers used to calculate the runoff volume from the open lot surfaces are reflective of the characteristics of open lot surfaces and range between 90 and 95. Runoff curve numbers used to compute the runoff from areas between the open lots and the RCS are reflective of the land use and condition of the areas between the open lots and RCS. A curve number of 100 is used for the RCS surface and all roofed areas.

Process Generated Wastewater is the volume of wet manure and wastewater generated by the facility that is flushed or otherwise directed to the RCS. Wastewater includes all water used directly or indirectly by the facility that comes in contact with manure or other waste. This facility does not have any process generated wastewater.

This facility is not required to maintain a treatment volume in the RCS because there is no process generated wastewater. The facility must obtain individual air quality authorization under 30 TAC 116.

Sludge accumulation volume is required in the RCS based on runoff from open lots. The sludge accumulation volume allocated for runoff open lots is estimated as 25% of the design storm volume from the open lots for a ten year period. A minimum of one year of sludge storage is required in the RCS. Design sludge volumes in this permit reflect twenty one (21) year accumulation for the RCS.

The RCS volume designated as Water Balance is the capacity needed to provide adequate operating capacity so that the operating volume does not encroach into the design storm volume. The water balance is an analysis of the inflow into the RCS, all outflows from the RCS and the consumptive use requirements of the crops on the land areas being irrigated. The water balance is developed on a monthly basis. It estimates all inflows into the RCS including runoff from open lots, areas between open lots and the RCS, roofed areas and direct rainfall onto the RCS surface. Consumptive use potential for the areas to be irrigated is developed based on the potential evapo-transpiration of the crops and the effective average monthly rainfall on the area to be irrigated. Runoff curve numbers used for the water balance are adjusted from 1 day to 30 day curve numbers to more accurately reflect monthly values.

Evaporation from the RCS surface is computed on a monthly basis. Monthly withdrawals from the RCS are developed based on the total inflow to the RCS minus evaporation from the RCS surface and limited by the monthly crop consumptive use potential.

Location: The facility is located on the south side of State Highway 6 approximately four and two tenths (4.2) miles east of the intersection of Farm-to-Market Road 219 and State Highway 6 in Dublin, Erath County, Texas. Latitude: 35° 5.08'N Longitude: 98° 15.24'W.

Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

IV. SUMMARY OF CHANGES FROM EXISTING AUTHORIZATION

The proposed permit includes revisions to 30 Texas Administrative Code Chapter 321, Subchapter B. The permittee is requesting to decrease land application acres from 84 acres to 77 acres. The proposed permit requires an increase in RCS capacity from 2.46 acre-feet to 4.94 acre-feet to accommodate the required margin of safety. Furthermore, land application of wastewater, sludge, and manure must be in accordance with a phosphorus based nutrient management plan. The permittee cannot exceed 999 total head at any one time until individual air authorization is obtained under 30 TAC 116 because of the occupied residence within the 0.25 mile buffer zone. For additional changes from the existing authorization, see Attachment 1.

V. WATER QUALITY PROTECTION

This proposed permit includes many requirements not required by the existing authorization. As a result, this proposed permit is more stringent. The new requirements can be categorized based on their intended goal: reduce the potential for discharges, minimize the nutrient loading to land and surface water, and increase the oversight of operational activities by the TCEQ.

The following requirements are designed to reduce the potential for discharges:

1. The design rainfall event, at which time the CAFO is authorized to discharge, has been increased from a 25–year, 24–hour rainfall event (7.3 inches) to a 25–year, 10–day rainfall event (12.0 inches). This is approximately a 60% increase to the design rainfall event which will result in an approximate 60% increase to the required design storm event storage capacity. The additional storage capacity creates a portion of the structure above the maximum operating capacity that will remain dry, except during chronic or catastrophic rainfall events. The increased storage capacity is expected to reduce the potential for discharge from the RCS.

2. A RCS management plan is required to be implemented. This plan must establish expected end of the month water storage volumes for the RCS. These maximum levels are based on the design assumptions used to determine the required size of the RCS. This plan assures the permittee will maintain wastewater volumes within the designed operating capacity of the structures, except during chronic or catastrophic rainfall events. The permittee must document and provide an explanation for all occasions where the water level exceeds the expected end of the month storage volumes. By maintaining the wastewater level at or below the expected monthly volume, the RCS will be less likely to encroach into the volume reserved for the design rainfall event and/or discharge during smaller rainfall events. This has resulted in an increased operating volume in the RCS. For this CAFO, the operating volume is equal to the water balance volume because there is no process generated wastewater. An operating volume of 0.29 acre-feet exceeds calculations of the maximum 30–day inflow minus evaporation.

3. The wastewater level in the RCS must be recorded daily. This requirement will assist the permittee in the implementation of the RCS management plan and will provide a visual indication of compliance.

4. The pond marker must have one foot increments. This requirement identifies the level of wastewater storage to assist the permittee in the implementation of the RCS management plan. It also acts as an enforcement tool for TCEQ to determine compliance with the RCS management plan.

5. The amount of sludge in the RCS must be maintained at or below the design sludge volume. Previously, sludge accumulation was not regulated on this CAFO. Excessive sludge accumulation can reduce the available wastewater storage volume. This more stringent requirement ensures that sufficient storage capacity is available for containment of the design wastewater volume and design rainfall event in the RCS. Proper sludge management will reduce overflows associated with insufficient wastewater storage capacity. This permit requires that sludge accumulations in the RCS be measured at least annually beginning in year three of the permit. The proposed sludge volume allocation for RCS #1 is 0.79 acre feet, which is designed for a twenty one (21) year accumulation.

6. Land application is prohibited between the hours of 12 a.m. and 4 a.m. This provision reduces the potential of irrigation related discharges associated with equipment malfunctions.

The following requirements are designed to help minimize the nutrient loading to land and the potential for nutrient loading to surface water:

1. The land application of wastewater, sludge, and manure must be in accordance with a Nutrient Management Plan (developed by a certified nutrient management specialist, based on United States Department of Agriculture/Natural Resource Conservation Service (NRCS) Practice Standard 590) which provides the permittee the necessary information to properly manage the amount, form, placement and timing for the application of nutrients to the LMUs. The proposed permit requires a nutrient management plan to be implemented upon issuance of this permit. This plan involves a site specific evaluation of the land management unit to include soils, crops, nutrient needs and includes the phosphorus index tool. The phosphorus index is a site specific evaluation of the risk potential for phosphorus movement into watercourses. The risk potential is determined by site characteristics such as soil phosphorus level, proposed phosphorus application rate, application method and timing, proximity of the nearest field edge to a named stream or lake, soil permeability, and soil erosion potential. The application rates are adjusted according to the risk potential. The higher the risk potential, the lower the application rate. In determining the application rate, the nutrient management plan also evaluates the amount of nutrients needed for optimal crop production and then balances that need between the nutrients in the soils and nutrient source (i.e. wastewater, sludge, and manure). Once the nutrients are in balance, there is minimal potential to have excess nutrients available to leave the site and affect water quality. The nutrient need is based on the most limiting nutrient which is phosphorus; thus a phosphorus application rate will be established for each individual LMU. This proposed permit requires all excess manure, sludge and wastewater that cannot be land applied in accordance with the nutrient management plan to be removed (exported) from the facility (see item #3 below for additional discussion on manure and sludge management).

   This plan determines the application rate based on phosphorus, whereas the previous land application rates were based on the nitrogen requirement of the crop. In general, when calculating the application rate for coastal bermudagrass, if all variables remain unchanged except the crop nutrient requirement, the phosphorus application rate will be approximately 40% less than the nitrogen application rate. This reduced application rate will lower the potential for land applied nutrients to enter surface water and increase the amount of excess waste to be managed off-site. Record keeping and reporting requirements, such as the amount of manure produced, amount of wastewater, sludge, and manure land applied, soil sampling and analyses, and the amount of wastewater, sludge, and/or manure removed from the facility, can be used to verify compliance with the nutrient management plan.

2. In addition to the requirements for implementation of a nutrient management plan, the permittee must continue to operate under a Comprehensive Nutrient Management Plan (CNMP) certified by the Texas State Soil and Water Conservation Board. The CNMP must be developed by a qualified individual(s) in accordance with Texas State Soil and Water Conservation Board regulations. 30 TAC §321.42(s) required all dairy CAFOs, located in a major sole source impairment zone, to implement a CNMP by December 31, 2006. The CNMP is a whole farm plan that addresses nutrient management from the origin in the feed rations to final disposition. The CNMP considers all nutrient inputs, onsite use and treatment, outputs, and losses. Inputs include animal feed, purchased animals, and commercial fertilizer. Outputs include animals sold, harvested crops removed from the facility, and manure removed from the facility. Losses include volatilization, stormwater runoff, and leaching.

3. All generated manure, sludge or wastewater in excess of the amount allowed by the nutrient management plan must be delivered to a composting facility authorized by the executive director, delivered to a permitted landfill, beneficially used by land application to land located outside of the major sole source impairment zone, or provided to operators of third-party fields for beneficial use subject to specified land application requirements and testing. By requiring specific outlets for excess manure, sludge and wastewater, the permit limits unregulated use of manure, sludge and wastewater within the watershed. Offsite use requires additional record-keeping to document how manure, sludge and wastewater are used and provides a mechanism to track each permittee's contribution toward the 50% voluntary removal goal in the Bosque River Total Maximum Daily Load (TMDL).

4. Additional conservation practices have been imposed on LMUs adjacent to water in the state. These conservation practices include a 100 foot vegetative buffer, filter strips, vegetative barrier, and/or contour buffer strips. Site specific conditions and NRCS practice standards specify which conservation practices, in addition to the required 100 foot vegetative buffer, must be implemented. The conservation practices reduce erosion, suspended solids and nutrients in runoff from LMUs. This will improve the quality of stormwater runoff prior to entering water in the state.

In the table below, the Additional Buffer Setback length was determined by using the NRCS Conservation Practice Code 393, Filter Strip. The practice code uses a combination of hydrologic soil groups and field slope percentages to calculate an appropriate filter strip length.

LMU#	Vegatative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip Flow Length (feet)
1	100	36
2	100	36

5. The table below illustrates numbers from the permittee's NMP to compare the crop requirement for Phosphorus versus the actual pounds applied. The plan is based on a goal of maintaining soil test Phosphorus (P) levels below 200 ppm, which results in a planned application amount, for all LMUs collectively, that is less than the maximum allowed under the East Texas Phosphorus Index. NMPs are routinely updated and the values shown below are subject to change.

LMU #	Soil Test P (ppm)	Max Annual P2O5 (pounds/ac.)	Proposed Annual P2O5 (pounds/ac.)	Percentage of Maximum Allowable
1	10	219	<1	0.1
2	21	265	244	99

The following requirements allow for increased oversight of operational activities by the TCEQ:

1. The permittee must provide a report to the TCEQ to substantiate a chronic rainfall discharge. After review of the report, if required by the executive director, the permittee must have an engineering evaluation by a licensed Texas professional engineer developed and submitted to the executive director. The report and engineering evaluation may be used to verify that the facility was maintained and operated according to the permit conditions. Information reviewed may include rainfall records at the CAFO, RCS wastewater levels preceding the discharge, irrigation records, and the current sludge volume. This requirement allows for closer scrutiny by TCEQ for discharges resulting from chronic conditions and provides documentation for enforcement of unauthorized discharges. The current authorization does not require chronic discharge documentation or an engineering evaluation.

2. The TCEQ regional office must be notified ten (10) days prior to annual soil sample collection activities. This allows the TCEQ to observe sample collection and/or obtain split samples for duplicate analysis to help assure that data collected is credible to support application rates in the nutrient management plan. The current authorization does not require notification of soil sample collection activities.

3. Annual soil samples must be collected by one of the following persons: the NRCS; a certified nutrient management specialist; the Texas State Soil and Water Conservation Board; the Texas Cooperative Extension; or an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas. This ensures that samples are collected by individuals who are knowledgeable about soil sampling techniques and sample preservation. The current authorization does not specify who must collect the annual soil samples.

4. Some of the land application records maintained by the permittee must be submitted to the TCEQ annually. These records include date of wastewater, sludge, and manure application to each LMU, location of the specific LMU and the volume applied during each application event, acreage of each individual crop on which wastewater, sludge, and manure is applied, basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than wastewater, sludge, and manure and on a dry basis, weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty–four (24) hours before and after the land application, and annual nutrient analysis for at least one (1) representative sample of each type of waste to be applied (wastewater, sludge (if applicable), or manure) for total nitrogen, total phosphorus, and total potassium. This will assist the TCEQ in monitoring compliance with land application requirements of the permit.

The conditions being proposed in this permit are anticipated to significantly reduce pollutants entering receiving waters. These reductions are from limiting the potential for RCS overflows and better managing land application of nutrients to LMUs. This permit requires all exported manure, sludge and wastewater that cannot be land applied in accordance with the nutrient management plan to be exported from the facility (i.e. composting, landfill, outside of the watershed, or third-party fields). The wastewater generated by the facility is retained and managed in the RCS that must be designed to exceed the federal sizing requirement. The RCS is required to be designed with a margin of safety, which requires a larger portion of the RCS to remain dry (i.e. the distance between the normal wastewater operating level and the spillway). This permit requires the RCS to accommodate rainfall and runoff from a 25-year, 10-day rainfall event rather than the 25-year, 24-hour rainfall event specified in Federal regulations. This results in approximately a 60% increase in the required storage capacity and is intended to reduce the potential for discharges from the RCS. The normal wastewater operating level is required to be closely monitored and maintained by implementation of the RCS management plan and increased recordkeeping by the permittee. The dry storage area is available to capture rainfall from extended periods of wet weather without overflow. In the unlikely event of an overflow, the permittee must provide records

to the TCEQ to prove that the overflow was unavoidable. If the overflow is determined to be unauthorized, this documentation provides TCEQ additional tools to initiate enforcement proceedings. These permit requirements, best management practices, and increased management and TCEQ oversight will protect water quality, when properly implemented.

VI. 303(d) LISTING and TOTAL MAXIMUM DAILY LOAD (TMDL)

The facility for this permit action is located within the watershed of North Bosque River in Segment 1226 of the Brazos River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 Texas Administrative Code §307.10) for Segment 1226 are contact recreation, public water supply, high aquatic life use, and 5.0 mg/L dissolved oxygen.

Green Creek is currently listed on the State's inventory of impaired and threatened waters (the 2004 Clean Water Act Section 303(d) list) for bacteria.

Segment No. 1226 is currently listed on the State's inventory of impaired and threatened waters (the 2004 Clean Water Act Section 303(d) list) for bacteria. The North Bosque River (Segments 1226 and 1255) was included in the 1998 Texas Clean Water Act 303(d) List and deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth.

Segment No. 1226 is included in the agency's document *Two Total Maximum Daily Loads for Phosphorus in the North Bosque River,* adopted by the Commission on February 9, 2001 and approved by EPA on December 13, 2001. *An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed* (TMDL Implementation Plan) was approved by the Commission on December 13, 2002 and approved by the Texas State Soil and Water Conservation Board on January 16, 2003.

The TMDL for the North Bosque River, Segments 1226 and 1255, identified the amount of phosphorus introduced into these segments, i.e. the load. Phosphorus load from two categories of sources was modeled to calculate the expected reductions in phosphorus load to meet instream water quality standards. Point sources included wastewater treatment plants; non-point sources included all other sources, such as CAFOs. The TMDL called for an average 50% reduction in the average concentration of soluble reactive phosphorus across river index stations and was to be achieved by a 50% reduction in soluble reactive phosphorus loadings from both point sources and non-point sources. The TMDL was developed assuming implementation of specific best management practices. This set of best management practices represents one way to achieve the water quality targets in stream and the overall reduction goal of the TMDL.

The TMDL was approved with the understanding that an adaptive management approach was an appropriate means to manage phosphorus load to the stream. The TMDL Implementation Plan emphasized this approach to achieve the phosphorus reductions targeted in the TMDL. Adaptive management envisions adjustment of management practices over time as necessary to reach this target. The TMDL anticipated that, to control loading to the stream, dairy CAFO permittees would implement those best management practices which best addressed site-specific conditions. Accordingly, the TMDL is not directly tied to the number of animal units permitted in the watershed; it is instead tied to the amount of nutrients that may be land applied consistent with management practices that ensure appropriate agricultural utilization of nutrients. Although this facility is not a dairy, it confines dairy cattle during and between auctions. Therefore, it is required to implement all applicable requirements of dairy CAFOs.

The provisions of this permit seek to reduce the amount of phosphorus (and other pollutants) discharged to water in the state from the CAFO. Primary management strategies for dairies, both voluntary and regulatory, were identified in the TMDL Implementation Plan which included: requiring phosphorus-based application rates when applying manure, wastewater, or sludge to LMUs; voluntarily implementing efforts to reduce the amount of phosphorus in dairy cow diets; and removing significant quantities of dairy-generated manure from the watershed for the production of compost, beneficial use on crops, or disposal. The permit application includes a nutrient management plan, which allocates the amount of nutrients to each LMU based on cropping patterns. The proposed permit requires a nutrient management plan to be implemented upon issuance of the permit and also specifies how the excess manure will be managed. The voluntary phosphorus diet reductions may be implemented through consultations between a nutritionist and the permittee. Any such dietary phosphorus reductions will result in reduced phosphorus concentrations in manure. These strategies are facets of CNMPs; CNMPs are required for all dairy CAFOs in the major sole-source impairment zone.

The CNMP must consider manure phosphorus content, the LMU area available for land application based on phosphorus-rate application, and the amount of exported manure that would remain. It must also account for all pathways of manure use or disposal, which would include removal to compost facilities, transport to another watershed for land application, or land application at onsite LMUs. The proposed permit requires the permittee to continue implementation of a CNMP.

These nutrient plans determine the nutrient application rate based on phosphorus, whereas the current authorization allows land application rates based on the nitrogen requirement of the crop. In general, the phosphorus application rate will be approximately 40% less than the prior nitrogen based application rates. These reduced application rates, based on phosphorus requirement of the crop or crop removal rates, will lower the potential for land applied

nutrients to enter surface water and increase the amount of waste to be managed off-site. The implementation of these enhanced nutrient management practices within the watershed is expected to result in phosphorus load reduction consistent with the TMDL Implementation Plan.

Continuing education requirements in the proposed permit mandate that the operator be trained on management practices that are also consistent with the TMDL Implementation Plan regarding feed management and waste management practices.

The TMDL Implementation Plan also includes a recommendation that the CAFO rule making consider more stringent requirements for RCSs, in order to reduce the potential for overflows from RCSs. In response, several permit provisions have been proposed that are consistent with the TMDL Implementation Plan, which include:

1. The RCS must be designed to contain the volume associated with a 25 year/10 day rainfall event,
2. a permanent marker, graduated in one-foot increments beginning from the bottom of the RCS to the top of the embankment or spillway,
3. a RCS management plan detailing procedures for proper operation and management of wastewater levels based on design and assumptions of monthly expected operating levels,
4. daily monitoring records of wastewater levels,
5. notification of discharges within one hour,
6. discharge sample analyses must be submitted to the TCEQ, and
7. a report of discharges must be submitted to the TCEQ regional office, documenting that overflows from cumulative rainfall events were beyond the permittee's control.

In addition, the September 15, 2003 White Paper, *Standards for Waste Retention Facilities in the North Bosque River Watershed*, states that "...some of the technical professionals working on this committee are convinced that a significant part of the dairy source loading as being from retention facilities." Although not directly quantifiable, it is expected that a significant phosphorus load reduction will occur as a result of these enhanced design standards. Not only will the increased capacity requirements result in load reductions, but the additional operation, maintenance, recordkeeping and reporting requirements will aid in achieving the water quality target for the North Bosque River.

The TMDL Implementation Plan includes a recommendation that the CAFO rule making consider whether additional limitations or requirements are needed for runoff control and whether additional irrigation management is needed to prevent excessive runoff. In response, the proposed permit includes the requirement for a CNMP (mentioned above), and a 100-foot

wide vegetative buffer plus an additional site specific filter strip between every application area and a water in the state. The proposed permit also specifies that automatic irrigation shutdown requirements may be imposed and prohibits nighttime land application from midnight to 4:00 a.m.

The RCS storage capacity requirements, nutrient management practices, increased TCEQ oversight of operational activities, and requirements of the TMDL Implementation Plan, which are incorporated into the draft permit, are designed to reduce the potential for this CAFO to contribute to further impairment from bacteria and nutrients such as total phosphorus. Furthermore, it is anticipated the implementation of the primary management strategies and permit provisions identified above will result in phosphorus load reduction in the watershed and achieve the reductions targeted in the TMDL. Attachment 2 outlines the proposed permit provisions discussed above and provides the purpose of each provision. The permit provisions are consistent with the approved TMDL that establishes measures for reductions in loadings of phosphorus (and consequently other potential pollutants) to the North Bosque River Watershed. Therefore, this permit is consistent with the requirements of the antidegradation implementation procedures in 30 Texas Administrative Code Section 307.5 (c)(2)(G) of the Texas Surface Water Quality Standards.

VII. DRAFT PERMIT RATIONALE

A. PERMIT CONDITIONS AND EFFLUENT LIMITATIONS

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

1. The application received on June 1, 2005 and subsequent revisions
2. TCEQ Permit No. WQ0004136000 issued December 13, 1999
3. Interoffice Memorandum from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division, dated September 13, 2007
4. Interoffice Memorandum from the Water Quality Standards Team, Water Quality Assessment Section, Water Quality Division, dated February 1, 2007
5. TCEQ rules
6. Bosque River TMDL Implementation Plan
7. NRCS Animal Waste Management Field Handbook, Nutrient Management Practice Standard Code 590, the Field Office Technical Guidance for Texas, and ASABE Standards
8. Environmental Protection Agency rules

Wastewater, sludge, and manure may only be discharged from a LMU or a properly designed, constructed, operated and maintained RCS into water in the state from this CAFO if any of the following conditions are met:

1. discharge resulting from a catastrophic condition other than a rainfall event that the permittee cannot reasonably prevent or control;

2. a discharge resulting from a catastrophic rainfall event from the RCS;

3. a discharge resulting from a chronic rainfall event from the RCS; or

4. a discharge resulting from a chronic rainfall event from a LMU that occurs because the permittee takes measures to de-water the RCS in accordance with the individual permit, relating to imminent overflow.

For a discharge resulting from a chronic rainfall event, the permittee shall submit a report to the appropriate TCEQ regional office that includes the CAFO records that substantiates that the overflow was a result of cumulative rainfall that exceeded the design rainfall event, without the opportunity for dewatering, and was beyond the control of the permittee. After review of the report, if required by the executive director, the permittee shall have an engineering evaluation by a licensed Texas professional engineer developed and submitted to the executive director.

All waste including any manure, bedding or feedwaste from the CAFO and any water contaminated by waste contact must be stored or utilized to comply with the permit and TCEQ Rules. The proposed permit satisfies the Environmental Protection Agency effluent limitation guidelines in 40 Code of Federal Regulations, Parts 412 and122.

40 Code of Federal Regulations §122.44 specifies that any requirements, in addition to or more stringent than promulgated effluent limitation guidelines, must be applied when they are necessary to achieve state water quality standards. Water quality based effluent limitations must be established when TCEQ determines there is a reasonable potential to cause or to contribute to an in-stream excursion above the allowable ambient concentration of a state numeric criterion. For CAFO discharges the TCEQ must consider:

1. existing controls on point and non-point sources of pollution;
2. variability of the pollutant in the effluent; and
3. dilution of the effluent in the receiving water.

In proposing this permit, the TCEQ addresses considerations 2. and 3. since continuous discharges are prohibited and effluent discharges are authorized only during catastrophic conditions or a chronic or catastrophic rainfall event from a RCS properly designed, constructed, operated and maintained. The effluent pollutant

levels are variable and effluent is usually not discharged. Additionally, during these climatic events, water bodies receiving a contribution of CAFO wastewater should be significantly diluted by other rainfall runoff.

Consideration 1. requires permit controls on CAFO discharges which will result in the numeric criteria of the water quality standards being met, thus ensuring that applicable uses of water in the state are attained. The principal pollutants of concern include organic matter causing biochemical oxygen demand, the discharge of ammonia-nitrogen, phosphorus and fecal coliform bacteria. This permit requires discharges to be monitored for the pollutants of concern. Existing technology does not allow for practicable or economically achievable numeric effluent limitations at this time. The Environmental Protection Agency has not promulgated effluent guidelines or numeric effluent limitations that would allow regular discharges of CAFO process wastewater or process-generated wastewater. The proposed permit addresses potential pollutant impacts through requirements including numerous narrative (non-numeric) controls on CAFO process wastewater and non-point sources of pollutant discharges associated with CAFOs. Setting specific water quality-based effluent limitations in this permit is not feasible (see 40 Code of Federal Regulations §122.44 (k)(3)). Instead, the proposed permit provides general and site specific provisions which are expected to result in compliance with water quality criteria and protection of attainable water quality as follows:

1. The approved recharge feature certification submitted in the permit application must be updated and maintained in the onsite pollution prevention plan. The recharge feature certification describes the location of the CAFO relative to certain natural and artificial features that could result in adverse ground water impacts. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water.

The table below shows potential soil limitations identified in the recharge feature evaluation and the proposed management practices to address those limitations.

Soil Series and Map ID	Potential Limitations	Best Management Practices
Blanket (BaB)	Slow permeability	High residue crops, terraces and waterways
Bolar-Denton (BdC)	Permeability, shallow to limestone, excessive slopes	High residue crops, establish in permanent vegetation
Denton (DeB)	Slow permeability, shallow depth, limestone bedrock	High residue crops, establish in permanent vegetation, terraces and waterways
Frio (Fr)	May be inundated for short periods every 7-10 years	High residue crops
Lindy (LyB)	Moderately deep, slow permeability, medium runoff, moderate erosion hazard	High residue crops, establish in permanent vegetation, terraces and waterways
Purves (PcB)	Shallow depth, slow permeability, medium runoff	High residue crops, establish in permanent vegetation, terraces and waterways
Purves (PcC)	Shallow depth, slow permeability, low Available Water Capacity, slopes, runoff	High residue crops, establish in permanent vegetation, terraces and waterways
Purves-Dugout (Pd)	Shallow depth, steep slopes, slow permeability	High residue crops, establish in permanent vegetation, continuous vegetative cover

The table below lists all wells on the facility, their status, and what measure will be taken to protect groundwater.

Well (Map Number*)	Status	BMPs
1	Producing	Maintain 150-ft buffer
2	Producing	Maintain 150-ft buffer
3	Non-Producing	Maintain 150-ft buffer
4	Producing	Maintain 150-ft buffer

* As shown on Attachment B of the permit

2. The RCS at the CAFO must be adequately lined and certified by a professional engineer; alternatively, certification must document a lack of hydrologic connection between wastewater in the RCS and groundwater. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water. A liner certification, certified by a professional engineer, for the RCS was submitted with the application. The table below lists the information for the existing RCS #1.

RCS No.	Construction Date	Liner Certification Date
1	2000	July 17, 2007

3. RCS design criteria must include volumes for the design rainfall event and sludge. These design criteria must be supplemented with a water balance analysis that demonstrates that wastewater can be sufficiently stored and irrigated and that consumption of the wastewater will not induce runoff or create tailwater. The application includes design calculations, certified by a professional engineer, which determine the design criteria for the RCS. The permittee must increase the volume of RCS #1 to meet the design criteria.

4. The modified RCS must maintain two vertical feet of material equivalent to construction materials between the top of the embankment and the structure's spillway to protect from overtopping the structure. A RCS without a spillway must have a minimum of two vertical feet between the top of the embankment and the required storage capacity.

5. Recordkeeping and reporting requirements are designed to help ensure that the permittee complies with the permit provisions. Some of these requirements include daily records of RCS wastewater levels and measurable rainfall; weekly records of manure, wastewater, and sludge removed from the facility, inspections of control facilities and land application equipment; and monthly records of wastewater, sludge, and manure land applied. The permittee is required to submit an annual report to the TCEQ which includes a subset of the permit recordkeeping requirements.

6. Discharge of wastewater from irrigation is prohibited, except a discharge resulting from irrigation events associated with imminent overflow conditions. Precipitation-related runoff from LMUs is allowed by the permit, when land application practices are consistent with a nutrient management plan or nutrient utilization plan.

7. Solid waste management provisions specify requirements which minimize adverse water quality impacts.

8. The entry of uncontaminated stormwater runoff into the RCS must be minimized. The site includes berms to both direct contaminated runoff into the RCS and prevent uncontaminated stormwater runoff from entering the RCS.

9. The permittee shall take all steps necessary to prevent any adverse effect to human health or safety, or the environment.

10. The permittee shall provide the following notifications:

    (a) Any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ, orally or by facsimile transmission within twenty-four (24) hours and in writing within five (5) days of becoming aware of the noncompliance.

    (b) Discharges resulting from a chronic or catastrophic rainfall event or catastrophic conditions must be reported orally within one hour of the discovery of the discharge and in writing within fourteen (14) working days.

Where a specific chemical pollutant does not have a water quality criterion and that pollutant is present in CAFO effluent at a concentration that has the reasonable potential to cause, or contribute to, an excursion above a narrative criterion in the state water quality standards, TCEQ must establish effluent limits, except as provided by 40 Code of Federal Regulations Section 122.44(k).

Nutrient pollutants of concern have narrative criteria and are discharged in CAFO wastewater. As described above, effluent limitations are not feasible at this time. Nutrient management has been addressed through the imposition of a three tiered approach, based on the soil phosphorus concentration.

For LMUs with a soil phosphorus concentration of less than 200 ppm in Zone 1 (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) depth, a certified nutrient management plan is required. This plan is based on the NRCS Practice Standard Code 590. It uses site specific criteria to determine the phosphorus application rate based on the crop requirement. It addresses the amount, source, placement, form, and timing of the application of all nutrients and soil amendments to meet crop needs. As

previously discussed in Section V of this Fact Sheet, the nutrient application rate is based on the most limiting nutrient which is phosphorus, thus there is minimal potential to have excess nutrients available to leave the site and affect water quality.

As required by Texas Water Code §26.504, for LMUs with a soil phosphorus concentration of 200 - 500 ppm in Zone 1 (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) depth, the permittee must submit a nutrient utilization plan based on crop removal. At the discretion of the certified nutrient management specialist, the nutrient utilization plan may also include a phosphorus reduction component. This nutrient utilization plan must be submitted to the TCEQ for review and approval. The nutrient utilization plan is a revised nutrient management plan developed utilizing the same NRCS 590 Practice Standard tool to evaluate the site specific elements in the LMU such as slope and distance to water courses, the rates, methods, schedules of wastewater, sludge, and manure application, and best management practices including physical structures and conservation practices utilized by the CAFO to assure the beneficial use of wastewater, sludge, and manure is conducted in a manner that prevents phosphorus impacts to water quality. A crop removal application rate is the amount of nutrients contained in and removed by the proposed crop.

As required by Texas Water Code §26.504, for LMUs with a soil phosphorus concentration of greater than 500 ppm in Zone 1 (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) depth, the nutrient utilization plan must be based on crop removal and include a phosphorus reduction component. A phosphorus reduction component is a management practice, incorporated into the nutrient utilization plan, that is designed to further reduce the soil phosphorus concentration by means such as phosphorus mining, moldboard plowing, or other practices utilized by the permittee. This revised nutrient utilization plan must also be submitted to the TCEQ for review and approval. Permittees required to operate under a nutrient utilization plan with a phosphorus reduction component must show a reduction in the soil phosphorus concentration within twelve (12) months or may be subject to enforcement actions.

After a nutrient utilization plan is implemented, the permittee shall land apply in accordance with the nutrient utilization plan until the soil phosphorus is reduced below 200 ppm. Each of these plans must be developed and certified by a nutrient management specialist. This three tiered approach, when implemented, should minimize the potential for nutrients to accumulate in the soil and reduce nutrient concentrations in LMUs. Failure to operate in accordance with a nutrient management plan or nutrient utilization plan may constitute a violation of state law and this permit and may subject the permittee to enforcement action.

B. TECHNOLOGY-BASED REQUIREMENTS

Technology-based effluent limitations are considered in the proposed individual permit. Effluent limitations are based on "best conventional pollutant control technology", and "best available technology economically achievable", a standard which individually represents the best performing existing technology in an industrial category or subcategory. "Best available technology economically achievable" and "best conventional pollutant control technology" effluent limitations may never be less stringent than corresponding effluent limitations based on "best practicable control technology", a standard applicable to similar discharges before March 31, 1989 under Clean Water Act §301(b)(1)(A).

Frequently, the Environmental Protection Agency adopts nationally applicable guidelines identifying the "best practicable control technology", "best conventional pollutant control technology", and "best available technology economically achievable" standards to which specific industrial categories and subcategories are subject. When such guidelines are published, the Clean Water Act, §402(a)(1) requires that appropriate "best conventional pollutant control technology" and "best available technology economically achievable" effluent limitations be included in permitting actions on the basis of the permitting authority's best professional judgement.

The Environmental Protection Agency standard for CAFOs, as contained in 40 Code of Federal Regulations Parts 122 and 412, is no discharge of waste or wastewater from animal feeding operations into water of the United States, except when chronic or catastrophic rainfall or catastrophic conditions cause an overflow. All waste including any manure, litter, bedding or feedwaste from animal feeding operations and any water contaminated by waste contact must be stored or utilized to comply with this individual permit, which requires applicable technology control.

The conditions of the proposed permit have been developed to comply with the technology-based standards of 40 Code of Federal Regulations Part 412. The proposed permit includes provisions and performance standards based on NRCS technical standards rather than numeric limitations, to address the collection, storage, treatment and land application of manure, sludge, or wastewater and to limit pollutants in discharges. This permit exceeds these standards by requiring the 25-year/10-day design storm event storage volume.

C. WATER QUALITY-BASED REQUIREMENTS

The proposed permit would authorize the land application of wastewater, sludge, and manure, and would only allow a discharge to surface water when chronic or catastrophic rainfall or catastrophic conditions result in an overflow of a properly designed, operated and maintained RCS. No water quality impacts are expected to occur from land application based upon properly prepared and implemented nutrient management practices.

Instead of numeric water quality based effluent limitations, this permit establishes management practices to restrict discharges to occur only during defined chronic or catastrophic rainfall events or catastrophic conditions. Discharges occurring during these conditions would be highly intermittent in nature and should be significantly diluted by rainfall runoff.

D. MONITORING REQUIREMENTS

Monitoring requirements were established based on TCEQ rules, and 40 Code of Federal Regulations Part 412. For any discharges, grab samples must be collected and analyzed for Biochemical Oxygen Demand, Total and Fecal Coliform, Total Dissolved Solids, Total Suspended Solids, Nitrate, Total Phosphorus, Ammonia Nitrogen and pesticides (if suspected). Soil samples must be taken annually from LMUs and analyzed for Nitrate, Phosphorus, Potassium, Sodium, Magnesium, Calcium, Soluble salts/electrical conductivity, and pH. Discharges and soil analyses are reported to TCEQ.

E. REQUIREMENTS FOR BENEFICIAL USE OF MANURE, SLUDGE, AND WASTEWATER

The proposed permit contains requirements related to the collection, handling, storage and beneficial use of manure, wastewater, and sludge. These requirements were established based on TCEQ rules, Environmental Protection Agency guidance, NRCS Field Operations Technical Guidance and the Animal Waste Management Field Handbook, recommendations from the TCEQ's Water Quality Assessment Team, and best professional judgment.

40 Code of Federal Regulations §122.42(e)(1) specifies that a nutrient management plan must be developed and implemented by February 27, 2009. The elements of a nutrient management plan as listed in 40 Code of Federal Regulations §122.42(e)(1) have been incorporated into this permit. This permit requires a nutrient management

plan and each of the required elements to be implemented upon issuance of this permit. In relation to these items, the proposed permit is more stringent than federal requirements.

This permit also requires the continued implementation of a CNMP which was required as of December 31, 2006. The CNMP must consider manure, wastewater, and sludge handling and storage, land treatment practices, nutrient management, documentation of implementation and management activities associated with the CNMP, feed management (voluntary), and alternative uses for manure. This requirement is not required by federal rule and is, consequently, more stringent than federal requirements.

The proposed permit authorizes the use of third-party fields, i.e. land not owned, operated, controlled, rented, or leased by the CAFO owner or operator that have been identified in the PPP. The permittee must have a contract with the operator of the third-party fields. The written contract must require all transferred manure, wastewater, and sludge to be beneficially applied to third-party fields in accordance with the applicable requirements in 30 Texas Administrative Code §321.36 and §321.40 at an agronomic rate based on soil test phosphorus in Zone 1 (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) depth. A certified nutrient management specialist must annually collect soil samples from each third-party field used and have the samples analyzed in accordance with the requirements for permitted LMUs. The permittee is prohibited from delivering manure, wastewater, and sludge to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm in Zone 1 (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated) depth or after becoming aware that the third-party operator is not following the specified requirements and the contract. The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field. The third-party fields must be identified in the pollution prevention plan. The permittee must submit a quarterly report with the name, locations, and amounts of manure, wastewater, and sludge transferred to operators of third-party fields.

VIII. THREATENED OR ENDANGERED SPECIES

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) Biological Opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES) dated September 14, 1998 and the October 21, 1998 update. To make this determination for TPDES permits, TCEQ and Environmental Protection Agency only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS Biological Opinion. This determination is subject to reevaluation due to subsequent updates or amendments to the Biological Opinion. The permit does not require Environmental Protection Agency review with respect to the presence of endangered or threatened species.

IX. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant instructing the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the fact sheet, to the Chief Clerk. At that time, Notice of Application and Preliminary Decision will be mailed to the people identified on the Office of the Chief Clerk mailing list and published in the newspaper. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application. A public meeting is intended for the taking of public comment, and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's Response to

Comments and Final Decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that a person may request a contested case hearing or file a request for reconsideration of the Executive Director's decision within thirty (30) days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within thirty (30) days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Jamie Saladiner at (512)239-5021.

Jamie Saladiner

Jamie Saladiner
CAFO Permits Team
Water Quality Assessment Section
Water Quality Division

6/26/2008
Date

Attachment 1

	Existing Authorization #04136 issued December 13, 1999	Proposed permit
Head Count	1,800	1,800
RCS Required Capacity (acre-feet)	4.02	4.94
RCS Actual Capacity (acre-feet)	2.46	Permit requires RCS enlargement to meet required capacity
additional capacity (acre-feet)	0	Permit requires RCS enlargement to meet required capacity
PE certification of RCS design volumes	not required	required
design rainfall criteria	25 year/24 hour rainfall event	25 year/10 day rainfall event
RCS management plan	not required	required
RCS depth marker	25 year/24 hour designation	25 year/10 day designation; and 1 foot graduations to bottom of pond
management of sludge volume in RCS	not required in RCS without treatment capacity	Clean out required before sludge volume exceeds the sludge volume designed for the RCS. Sludge volume accumulations measured as needed first two years, then annually beginning in year 3 of the permit.

RCS discharge monitoring	monitored for fecal coliform, 5-day biochemical oxygen demand, total suspended solids, ammonia nitrogen, and any pesticide which the operator has reason to believe could be in the discharge	monitored for all previous parameters plus total coliform, total dissolved solids, nitrate, and total phosphorus
Chronic discharge determination	not required	required
land application of sludge	based on nitrogen requirement of the crop	only in accordance with a phosphorus based nutrient management plan that accounts for elevated nutrient concentrations
agronomic rate	based on nitrogen requirement of crop	based on phosphorus requirement of crop
land application of manure and wastewater	at agronomic rates unless soil phosphorus levels exceed 200 ppm	in accordance with a phosphorus based nutrient management plan, unless soil phosphorus levels exceed 200 ppm
phosphorus index risk assessment	not required	required
additional manure removed from the facility	unlimited options for final disposition	compost facility, landfill or beneficially land applied outside the watershed, or beneficially land applied to third-party fields
Buffer distances between land application and surface water	100 ft	100 ft plus additional NRCS conservation practices

nighttime land application	allowed	prohibited between 12 am and 4 am
soil sampling notification	no notice required	regional office notification prior to sampling
soil sampling	permittee collects annually	CNMS collects annually

Attachment 2

Permit Provision	Purpose
25 year/24 hour rainfall event to 25 year/10 day rainfall event	• 60% increase to the storage capacity reserved for chronic rainfall • an additional portion of the structure will remain dry, except during chronic or catastrophic rainfall events • will reduce potential for overflow
RCS management plan	• predicts expected end of the month water storage volumes for the RCS • requires permittee to manage water level accordingly • requires permittee to maintain minimum wastewater volume • will reduce potential for overflow
monitor and record RCS wastewater level daily	• provides visual indication of compliance
One foot increments on pond marker	• identifies the level of wastewater storage to assist the permittee in the implementation of RCS management plan • enforcement tool
maintain RCS sludge volume at or below designed sludge volume	• requires sludge removal to maintain the required wastewater storage capacity • will reduce overflows associated with insufficient wastewater storage capacity
Land application prohibited 12 am to 4 am	• reduces the potential of irrigation related discharges associated with equipment malfunctions

Nutrient Management Plan (based on crop requirement rate)	• 40% reduction in land application rate by going from N rate to P rate • establishes the annual application rate based on annual soil analyses, phosphorus index, and management practices used at the facility • based on NRCS Practice Standard 590
Nutrient Utilization Plan (based on crop removal rate)	• stabilizes and/or reduces phosphorus on high phosphorus LMUs by establishing the annual application rate based on the amount of nutrients removed by the previous year's harvest based on NRCS Practice Standard 590
CNMP	• whole farm mass balance of nutrients which considers all inputs, onsite use and treatment, outputs, and losses. • Inputs include animal feed, purchased animals, fertilizer • Outputs include animals sold, harvested crops removed from facility, and manure removed from the facility • Losses include volatilization, runoff, and leaching
Excess manure must go to compost, landfill, outside of watershed, or third-party fields	• limits unregulated use of manure within the watershed • offsite use incurs additional record-keeping to document how excess manure is used. • provides mechanism to track 50% voluntary removal goal in TMDL
chronic discharge determination	• discharges resulting from chronic conditions are more closely scrutinized by TCEQ Regional Office • validates chronic conditions claim • provides documentation to TCEQ for enforcement of unauthorized discharge

soil sampling notification	• allows the TCEQ to observe sample collection and/or obtain split samples for duplicate analysis • assures data collected is credible to support application rates in nutrient management plan
soil sampling by technical service provider	• ensures that samples are collected by unbiased individuals who are knowledgeable about soil sampling techniques and sample preservation
Conservation Practices for LMUs adjacent to water of the state (100 foot vegetative buffer, filter strips, vegetative barrier, contour buffer strips)	• reduce erosion, suspended solids, pathogens, and nutrients in runoff from LMUs. • site specific conditions and NRCS practice standards specifies which Conservation Practices must be implemented