TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 26, 2009

La Donna Castañuela, Chief Clerk
Texas Commission on Environmental Quality
Office of the Chief Clerk (MC-105)
P.O. Box 13087
Austin, Texas 78711-3087

Re: **OSVE Dairy**
TCEQ DOCKET NO. 2009-1634-AGR

Dear Ms. Castañuela

Enclosed for filing is the Executive Director's Response to Request for hearing in the above-entitled matter.

Sincerely,

Michael T. Parr
Staff Attorney, Environmental Law Division

cc: Mailing List

Enclosure

DOCKET NUMBER 2009-1634-AGR

APPLICATION BY	§	**BEFORE THE**
Joseph Wilson Osinga, Jennifer Sheree	§	**CHIEF CLERKS OFFICE**
Osinga, Bert Marcel Velsen & Heidi	§	**TEXAS COMMISSION ON**
Velsen dba Osve Dairy	§	
for TPDES Permit No. WQ0003682000	§	**ENVIRONMENTAL QULAITY**

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUEST

I. Introduction

The Executive Director (ED) of the Texas Commission on Environmental Quality (TCEQ or Commission) files this Response to Hearing Request on the application by Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen & Heidi Velsen dba Osve Dairy (Applicant) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0003682000.

A contested case hearing request was received from the Bosque River Coalition represented by Lloyd Gosselink Rochelle & Townsend, P.C. (Coalition).

Attached for Commission consideration are the following:

Attachment A -	Satellite Map of Area
Attachment B -	Fact Sheet and Executive Director's Preliminary Decision
Attachment C -	Draft Permit
Attachment D -	Executive Director's Response to Public Comments (RTC)
Attachment E -	Compliance History

II. Description Of The Facility

The Applicant has applied to the TCEQ for a major amendment to TPDES Permit No. WQ0003682000 that would authorize the permittee to expand an existing dairy facility from 850 head to a maximum of 1,600 head, of which 700 head are milking cows.

The dairy will consist of eight retention control structures (RCS), with RCS No.1&2 acting as a single pond with a combined capacity of 44.94-acre feet. RCS No. 3-6 have a combined capacity of 6.16-acre feet. In addition, the facility will have nine LMUs of the following sizes in acreage: LMU No. 1-11, LMU No. 2-70, LMU No. 2a-7, LMU No. 3-34, LMU No.4a-16, LMU No. 4be-80, LMU No. 4bw-8, LMU No. 4c-16, and LMU No. 5-30. The dairy is located on the east side of US Highway 281, approximately 10 miles south of the city limit sign of Stephenville, 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.

III. Procedural Background

The application was received on May 9, 2007, and declared administratively complete on July 20, 2007. Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published in the *Stephenville Empire Tribune* on August 2, 2007. The ED completed the technical review of the application and prepared a draft permit. Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) was published November 16, 2008 in the *Stephenville Empire Tribune* and the comment period closed December 15, 2008. The ED filed his Response to Comments (RTC) on August 31, 2009. The RTC and ED's final decision letter were mailed on September 3, 2009, and the period to file a request for contested case hearing closed October 5, 2009. This application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

IV. The Evaluation Process for Hearing Requests

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings. The Commission implemented HB 801 by adopting procedural rules in Title 30 of the Texas Administrative Code (30 TAC) Chapters 39, 50, and 55. This application is subject to the HB 801 requirements.

A. Responses to Requests

"The executive director, the public interest counsel, and the applicant may submit written responses to [hearing] requests . . . ." 30 TAC § 55.209(d).

According to 30 TAC § 55.209(e), responses to hearing requests must specifically address:

(1) Whether the requestor is an affected person;
(2) Which issues raised in the hearing request are disputed;
(3) Whether the dispute involves questions of fact or of law;
(4) Whether the issues were raised during the public comment period;
(5) Whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment;
(6) Whether the issues are relevant and material to the decision on the application; and
(7) A maximum expected duration for the contested case hearing.

B. Hearing Request Requirements

In order for the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements. As noted in 30 TAC § 55.201(c): "A request for a

contested case hearing by an affected person must be in writing, must be filed with the chief clerk within the time provided . . . and may not be based on an issue that was raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment."

According to 30 TAC § 55.201(d), a hearing request must substantially comply with the following:

(1) Give the name, address, daytime telephone number, and where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;
(2) Identify the person's personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a manner not common to members of the general public;
(3) Request a contested case hearing;
(4) List all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request. To facilitate the commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the executive director's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy; and
(5) Provide any other information specified in the public notice of application.

C. Requirement that Requestor be an "Affected Person"

In order to grant a contested case hearing, the Commission must determine that a requestor is an "affected person." The factors to consider in making this determination are found in 30 TAC § 55.203 and are as follows:

(a) For any application, an affected person is 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.
(b) Governmental entities, including local governments and public agencies with authority under state law over issues raised by the application may be considered affected persons.
(c) In determining whether a person is an affected person, all factors shall be considered, including, but not limited to, the following:

(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) Likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;
(5) 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.

D. Additional Requirements if Requestor is a Group or Association

A group or association may request a contested case hearing only if the group or association meets all of the following requirements found in 30 TAC § 55.205(a):

(1) One or more members of the group or association would otherwise have standing to request a hearing in their own right;
(2) the interests the group or association seeks to protect are germane to the organization's purpose; and
(3) neither the claim asserted nor the relief requested requires the participation of the individual members in the case.

E. Referral to the State Office of Administrative Hearings

30 TAC § 50.115(b) details how the Commission refers a matter to the State Office of Administrative Hearings: "When the commission grants a request for a contested case hearing, the commission shall issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing." 30 TAC § 50.115(c) further states: "The commission may not refer an issue to SOAH for a contested case hearing unless the commission determines that the issue: (1) involves a disputed question of fact; (2) was raised during the public comment period; and (3) is relevant and material to the decision on the application."

V. Evaluation of Hearing Requests

A. Whether the Requestors Complied With 30 TAC §§ 55.201(c) and (d)

The Coalition submitted a timely written CCH request that included relevant contact information and raised disputed issues. The ED concludes that the CCH request substantially complies with the requirements of 30 TAC § 55.201.

B. Whether the Coalition Meets the Requirements of an Affected Person

The Coalition states that it is a Texas non-profit corporation represented by Martin Rochelle and

Lauren Kalisek of Lloyd Gosselink Rochelle & Townsend, P.C. The Coalition states that it was formed for the purpose of furthering the protection and enhancement of water quality in the Bosque River watershed; an interest germane to the organization's specific purpose. The Coalition states that neither the claim asserted nor the relief requested requires the participation of the named Coalition members in this case.

Additionally, to meet the association requirements in 30 TAC § 55.205(a)(1) the Coalition identified Ms. Mary Casselman as a member that it claimed would be affected by this permit action. The Coalition states that Ms. Casselman owns property immediately upstream and adjacent to the Applicant's property. The Coalition notes that she uses her property as a homestead and as an on-site residential recovery center. The ED's GIS map locates Ms. Casselman's property immediately upstream and adjacent to the Applicant's property. Ms. Casselman raised concerns that the odor will affect her use and enjoyment of her property and that her client's enjoyment of her property would also be affected.

The ED considered the factors at 30 TAC § 55.203 to determine whether Ms. Casselman is an affected person. Ms. Casselman's interest in using her property as a homestead and as an on-site residential recovery center is an interest that is protected by the law under which the application is being considered and there is a reasonable relationship between the interest claimed and the activity regulated. Ms. Casselman has a personal justiciable interest because the proximity of her property to the diary distinguishes her interest from that of the general public. Her property has a greater potential to be affected by the dairy's operations even though the permit does not authorize discharges into water in the state under normal operating conditions.

The ED created a GIS map (Attachment A) using the information provided by the Coalition on the map attached to their hearing request to show the location of Ms. Casselman's property relative to the facility and the RCSs. The ED's GIS map locates Ms. Casselman's property immediately upstream and adjacent to the Applicant's property.

The activities conducted at the facility have the potential to affect the health and safety of Ms. Casselman due to the distance from the facility to her property. Therefore, the ED recommends finding that Ms. Casselman does have a personal justiciable interest that would be affected by this application.

The ED recommends finding Ms. Casselman has standing in her own right as an affected person. Consequently, the ED recommends finding the Coalition has met the associational requirements of 30 TAC § 55.205(a)(1) because the member identified in the hearing request would otherwise have standing to request a hearing in his own right.

C. Whether Issues Raised Are Referable to State Office of Administrative Hearings (SOAH) for a Contested Case Hearing.

The ED also analyzed the issues raised in accordance with the regulatory criteria and provides the following recommendations regarding whether the issues are referable to SOAH. All of the issues discussed below were raised during the public comment period. None of the issues were withdrawn. All identified issues in the response are considered disputed, unless otherwise noted.

In their CCH request, the Coalition offers characterizations of contested issues and notes the corresponding RTC comment associated with each one. However, the issues as characterized by the Coalition are often overbroad to the extent that they bring in issues not raised during the comment period. The Coalition continually frames its issues in terms of whether the draft permit is "adequate," "sufficient," or "properly regulated." This framing would allow the Coalition to raise issues of law at a CCH because even if the Applicant shows that any standard required by the CAFO rules are met; it allows them to question whether the rules themselves are "adequate, "sufficient," or whether the dairy is "properly regulated" by the current CAFO rules.

For example, issue No. 46 as framed by the Coalition asks whether the draft permit "provides adequate protection of water quality from drainage or discharge from third party fields." As raised during the comment period, the issues raised in RTC comment No. 58 (framed as issue No. 46 by the Coalition) were more narrowly focused on whether the draft permit should prohibit drainage or discharge of wastewater from third party fields or whether the Applicant should be banned from using any third party field if found to be land applying on a field that contains in excess of 200 ppm of phosphorus or if the Applicant is found to exceed the proper land application rates.

As is noted below, these are issues of law, since runoff from third party field where wastewater is applied at agronomic rates are exempt from the Clean Water Act and not regulated by this permit. There is no basis for banning land application on third party fields in the draft permit because this activity is specifically allowed in the CAFO rules. *See* 30 TAC § 321.42(j).

Secondly, there is no basis in the CAFO rules for applying a blanket prohibition against delivery of all waste to all third party fields based on a single violation on a single third party field.

This and many of the other issues as framed by the Coalition are simply attempts to challenge TCEQ's interpretation of the rules or to promote imposition of more stringent rules through the CCH process. Another example is issue No. 11, as it is framed by the Coalition it asks "whether the draft permit provisions regarding the storage of slurry within RCS drainage areas are adequately protective of water quality." As raised by the City of Waco during the comment period, the issues raised in RTC comment No. 17 (framed as issue No. 11 by the Coalition) focuses on whether the construction of a slurry storage area is similar to an RCS , which requires a permit amendment.

In the interest of framing the issues in the way that they were raised during the comment period by the City of Waco, the ED referred to the RTC comment numbers noted in the CCH request and frames the issues as they were raised during the comment period. The CCH request by the Coalition states that issues No. 5-6; No. 9-27; No. 30; No. 32-39; No. 41-56; and No. 58 are disputed, so the

ED addresses and characterizes each of these issues as they were raised in the comment period by the City of Waco, rather than using the expansive characterization used by the Coalition in their hearing request.

1. **Whether the screen separator efficiencies are properly calculated in the storage volume calculations. (RTC No. 5)**

This is an issue of fact. As noted in the RTC, the model information for the screen separator was provided by the Applicant. However, if it can be shown that the Applicant, by using two different efficiencies for its screen separator in the storage volume calculations has caused an error in the storage volume calculations, then that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

2. **Whether the RCSs volume allocations and assumptions are calculated so that they meet the requirements in 30 TAC § 321.42(c). (RTC No. 6)**

This is an issue of fact. As noted in the RTC, the draft permit outlines the minimum volume allocation requirements for RCS No.1 & 2. The draft permit also requires that RCS No.1 & 2 be enlarged to meet the 25-year, 10-day rainfall event. However, if it can be shown that the volume allocations and treatment volume design does not meet the rule requirements and additional permit actions are necessary, then that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

3. **Whether the draft permit meets the requirements in 30 TAC § 321.38(g)(1) regarding including the standards for quality of soils used in construction of the RCSs. (RTC No. 30)**

This is an issue of fact. As noted in the RTC, Section VII.A.3(b) of the draft permit contains specific design and construction standards for RCSs. However, if it could be shown that this provision does not meet the rule requirements, then that information would be relevant and material to a decision on the application. The ED recommends referring this issue to SOAH.

4. **Whether the draft permit requirements for sampling of wastewater and manure are in compliance with the CAFO rule requirements. (RTC No. 37)**

Whether the draft permit complies with the sampling and monitoring requirements at 30 TAC § 321.36(g)(3) is an issue of fact. If the draft permit fails to attain consistency with the CAFO rules relating to sampling, such information would be relevant and material to a decision on the permit application. The ED recommends referring this issue to SOAH.

5. **Whether the TCEQ considered the Applicant's current ability to comply with the applicable rules before issuing the permit. (RTC No. 56)**

This is an issue of fact. As noted in the RTC, during the technical review the ED conducted a compliance history review of the Applicant and the site based on criteria in TAC, Chapter 60. The compliance history includes multimedia compliance-related components, which includes 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. However, if it could be shown that the Applicant has compliance issues need to be addressed in the draft permit, that information would be relevant or material to a decision on the application. The ED recommends referring this issue to SOAH.

6. **Whether the Applicant used an acceptable estimate of process-generated wastewater in the permit application. (RTC No. 9)**

As noted in the RTC, the ED considers Applicant's estimate acceptable as the lower range for processed wastewater provided in the NRCS software is 15 gallons per head per day. Therefore, any supporting sources for its estimate are not relevant and material to a decision on the application. The ED recommends not referring this issue to SOAH.

7. **Whether the Applicant is required to identify the source and quantify the amount of water it intends to use in removing manure from its freestall barns and whether that quantity is required to be in the draft permit. (RTC No. 10)**

The ED responded to the comment in the RTC by adding Special Provision X.R. to the draft permit to address the engineering calculations that account for recycled process water to be used to flush the freestall barns. Since the Coalition did not identify the issue still in dispute after the ED added Special Provision X.R., the ED does not consider this a disputed issue absent additional information from the Coalition on the specifics of the dispute. As a matter of law, there is no requirement that the draft permit specify in a special provision that the Applicant is limited to a specific volume of water from other sources. The ED recommends not referring this issue to SOAH.

8. **Whether the Applicant is required to indicate on the site map the location manure stockpiles, pens, open lot areas, adjacent ground cover areas between the pens and control structures and of the recycle lines and whether the freestall barns and milking parlor will have access to the recycled effluent on the waste flow chart. (RTC No. 11 & 16)**

As a matter of law, the CAFO rules do not specify the requirements of a site map nor are the recycle lines required to be shown. The waste flow chart, which shows the waste streams from the source to the waste storage areas, is not a document that is required. The location of all pens authorized by the draft permit is already shown on Attachment A of the draft permit. Therefore, whether the site map contains additional details about operations at the dairy is not relevant and material to a decision on the application. The ED recommends not referring this issue to SOAH.

9. **Whether the RCSs currently meet the applicable rules regarding a 25-year, 24-hour rainfall event or whether the Applicant should submit a new capacity certification for the existing RCSs to account for sludge accumulation so that the minimum treatment volume is maintained prior to issuance of the permit. (RTC No. 12, 13, & 26)**

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. The RCSs must meet the new requirements before the dairy is authorized to exceed 850 head. Therefore, this issue is not relevant and material to a decision on the application. The ED recommends not referring this issue to SOAH.

10. **Whether the stage/storage table required by the draft permit meets the requirements in 30 TAC § 321.42(g). (RTC No. 14)**

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, which includes a stage/storage table. This provision is being implemented through issuance of the permit. *See* 30 TAC § 321.42(a). Until the actual expansion and modification of the RCSs are completed and volumes certified, which takes place after the permit is issued, the stage/storage table cannot be completed. The ED recommends not referring this issue to SOAH.

11. **Whether the Applicant should be required to submit an RCS Management Plan prior to the permit being issued. (RTC No. 15)**

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 pollution prevention plan (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 RCSs are 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. The ED recommends not referring this issue to SOAH.

12. **Whether construction of a slurry storage area requires a permit amendment. (RTC No. 17)**

As noted in the RTC, this a matter of law, the CAFO rules do not require a permit amendment to construct slurry storage areas. Section X.G. of the draft permit was revised to clarify that slurry storage areas do not require a permit amendment and that slurry must be stored with in the drainage areas of an RCS, and the storage areas must be large enough to prevent overflow into settling basins or RCSs. The ED recommends not referring this issue to SOAH.

13. Whether the draft permit complies with the design and certification requirements for settling basins found in 30 TAC § 321.38. (RTC No. 18)

As a matter of law, 30 TAC § 321.38, require that an Applicant ensure that the design specifications and completed construction specifications are certified by a licensed Texas professional engineer. The failure to obtain the certifications or to maintain records verifying the certifications is a violation of the rules. Likewise, the draft permit requires that documentation describing the sources of information, assumptions, and calculations used to determine the appropriate volume capacities and structural features of each RCS be included in the PPP. Therefore, whether the Applicant should provide design and construction specifications that are certified by a licensed Texas professional engineer only after the permit is issued is an issue inappropriate to refer to SOAH. The ED recommends not referring this issue to SOAH.

14. Whether the design solid removal efficiency assumption for the settling basin in the draft permit complies with 30 TAC, Chapter 321. (RTC No. 19 & 20)

As a matter of law, 30 TAC § 321.38 does not require a specific solid removal efficiency assumption to be used in calculating the design specifications of an RCS or settling basin. As noted in the RTC, the Applicant used the Midwest Plan Service Structures and Environmental Handbook to derive the settling basin removal rate. The handbook states that: "Settling basins remove 50%-85% of the solids from lot runoff..." The application is based on 60% removal rate, which falls within the acceptable range in the reference material.

If the Applicant has overestimated the solids removal rate, he will have to remove solids more often to meet the requirement in 30 TAC § 321.42(c) 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. Additionally, according to the rules, there is no specific requirement in the CAFO rules regarding how often solids must be removed from a settling basin or a RCS. 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. The ED recommends not referring this issue to SOAH.

15. Whether settling basin solids should be defined as sludge in the draft permit (RTC No. 21)

As a matter of law, settling basin solids are not "sludge" since there is no sludge volume allocation. Therefore, settling basin solids are defined as "manure." The ED recommends not referring this issue to SOAH.

16. Whether the draft permit complies with 30 TAC § 321.39(c) regarding sludge accumulation in the RCSs. (RTC No. 22)

As a matter of law, 30 TAC § 321.39(c) and Section VII.A.5(a)(7) of the draft permit prohibit the Applicant from allowing sludge accumulation to exceed the design volume. Removing the sludge according to the design schedule will prevent the accumulation of sludge to exceed the design volume. Therefore, whether the draft permit should require an annual determination of sludge is immaterial because the sludge volume is not allowed to exceed the design volume regardless of how often the determination of sludge volume is done. The ED recommends not referring this issue to SOAH.

17. Whether capacity certifications should include both as-built RCS capacity and remaining RCS capacity due to sludge accumulation. (RTC No. 23)

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 RCSs. 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. The ED recommends not referring this issue to SOAH.

18. Whether the draft permit complies with the design and certification requirements for settling basins found in 30 TAC § 321.38. (RTC No. 24)

As a matter of law, 30 TAC § 321.38, require that an Applicant ensure that the design specifications and completed construction specifications are certified by a licensed Texas professional engineer. The failure to obtain the certifications or to maintain records verifying the certifications is a violation of the rules. Likewise, the draft permit requires that documentation describing the sources of information, assumptions, and calculations used to determine the appropriate volume capacities and structural features of each RCS be included in the PPP. Therefore, whether the Applicant should provide design and construction specifications that are certified by a licensed Texas professional engineer only after the permit is issued is an issue inappropriate to refer to SOAH. The ED recommends not referring this issue to SOAH.

19. Whether the Applicant should be required to demonstrate that RCS No. 3 currently complies with the liner and embankment standards in the draft permit before the permit is issued. (RTC No. 25)

The Applicant is required by the draft permit to re-construct its RCSs to meet embankment construction requirements after the permit is issued. Section VII.A.3(a) of the draft permit addresses existing RCS embankment design and construction by listing conditions for what constitutes an RCS that is considered to be properly designed with respect to the embankment design and construction and liner requirements and will be required to be implemented on issuance of the draft permit. Moreover, if at the time of construction any required documentation was not completed the RCS must be certified by a licensed professional Texas engineer as providing protection equivalent to the requirements of the permit. The ED recommends not referring this issue to SOAH.

20. Whether the draft permit's sampling protocol complies with 30 TAC Chapter 321. (RTC No. 27)

TCEQ rules at 30 TAC § 321.36 require a CAFO operator to show that there is no significant hydrologic connection between the contained wastewater and water in the state or have liner consistent with the requirements of this section. Documentation of lack of hydrologic connection or a proper liner must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist and maintained in the PPP on site. The rules do not provide for any specific number of liner samples that are required for certification. Section VII.A.2.(g)(3)(ii) of the draft permit requires that for each RCS, a minimum of one undisturbed sample must be collected per plan surface acre at the spillway elevation. This sampling provision already goes beyond the CAFO rules. The ED recommends not referring this issue to SOAH.

21. Whether the conditions for granting extensions to the RCS compliance schedule should be included in the draft permit. (RTC No. 32)

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. As a matter of fact, whether conditions are identified in the draft permit that would be the basis for granting extensions of the RCS compliance schedule are not relevant and material to a decision on the application. The ED recommends not referring this issue to SOAH.

22. Whether the descriptions of the structural controls in the permit application and draft permit comply with the CAFO rules in 30 TAC Chapter 321. (RTC No. 33)

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 diversion berm/ditch.

The permit requires the Applicant to conduct weekly inspections on all control facilities, including the RCSs, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to the RCSs; 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. The ED recommends not referring this issue to SOAH.

23. Whether the Applicant is required to demonstrate the adequacy of its dewatering capability prior to permit issuance. (RTC No. 34)

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. The ED recommends not referring this issue to SOAH.

24. Whether 30 TAC §§ 321.46(c)(2) and (e)(2) require the annual facility inspection report or five year evaluation to be sent to TCEQ. (RTC No. 35)

As a matter of law, the ED interprets these provisions as not requiring the annual facility inspection report or five-year evaluation to be sent to TCEQ. Questions of law or issues with the ED's interpretation of the rules are not appropriate issues to refer to SOAH. The ED recommends not referring this issue to SOAH.

25. Whether the draft permit should require that an engineer certify to the adequacy of structural controls in the five-year evaluation. (RTC No. 36)

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." The ED recommends not referring this issue to SOAH.

26. Whether the draft permit properly accounts for the management of phosphorus production in compliance with the CAFO rules in 30 TAC Chapter 321. (RTC No. 38)

The projection that 1,600 cows will generate 358 lbs. of phosphorus per day was not disputed. The calculation is based on a book value for phosphorus production by dairy cows developed by the American Society of Agricultural and Biological Engineers. As an issue of fact, 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. The ED recommends not referring this issue to SOAH.

27. Whether the draft permit is consistent with the North Bosque TMDL because it does not require up to 50% of the waste generated by the CAFO be managed outside of the North Bosque watershed. (RTC No. 39)

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. As raised by the Coalition during the comment period, this is an issue of law because it questions the ED's interpretation of the TMDL I-Plan and is therefore, not an issue appropriate to referral to SOAH. The ED recommends not referring this issue to SOAH.

28. Whether the draft permit is required to limit LMUs to forty acres in size. (RTC No. 41)

As a matter of law, the CAFO rules do not specify or limit the size of a LMU. Also, the CAFO rules in 30 TAC Chapter 321 do not require that the soil sampling area define the size of an LMU. The ED recommends not referring this issue to SOAH.

29. Whether the Applicant should be required to shorten the length of LMU No. 2's pivot. (RTC No. 42)

This is an issue of fact. The LMU acreage shown on page 1 of the draft permit is the only authorized acreage owned, operated, controlled, rented, or leased by the Applicant for land application activities. Additionally, Attachment B graphically represents the acreage of LMU No. 2 and the setback from the property line where land application activities are allowed. If in practice the Applicant has positioned a pivot on an LMU such that it sprays effluent on unauthorized acreage then that is a violation of the permit and Texas Water Code § 26.121. Therefore, no additional permit provisions are necessary to address what is already prohibited by the draft permit and whether the pivot is too long or too short is not relevant and material to a decision on the application. The ED recommends not referring this issue to SOAH.

30. Whether 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. (RTC No. 43)

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. The ED recommends not referring this issue to SOAH.

31. Whether the NRCS Practice Code 590 methodology used to calculate the agronomic rates in the NMP is flawed. (RTC No. 44)

As raised during the comment period, this is an issue of law. The NRCS methodology is what is proscribed by the current version of the CAFO rules. Therefore, an issue that claims the methodology required by the rules is flawed questions the validity of the CAFO rules and is not an appropriate issue to refer to SOAH for a hearing on this permit application. The ED recommends not referring this issue to SOAH.

32. Whether the draft permit is inconsistent with the TMDL I-Plan by allowing land application on fields with phosphorus levels over 200 ppm. (RTC No. 45)

This is an issue of law. 30 TAC § 321.42(o) specifically allows land application on LMUs that have a phosphorus level between 200 and 500 ppm of phosphorus as long as it is supported by a certified nutrient utilization plan (NUP). Land application on third party fields is where phosphorus levels exceed 200 ppm is already prohibited. *See* 30 TAC 321.42(j)(2). Therefore, this issue is not appropriate for referral to SOAH because the issue is with the CAFO rules, not this particular permit action. The ED recommends not referring this issue to SOAH.

33. Whether the Applicant should be prohibited from applying supplemental commercial fertilizer on LMUs that exceed the crop requirement for phosphorus. (RTC No. 46)

This is an issue of fact. However, as noted in the RTC, whether the nutrients required by the crop are supplied from organic or inorganic sources is not relevant so long as the Applicant adheres to the required BMPs. The ED recommends not referring this issue to SOAH.

34. Whether the draft permit should prohibit waste application on uncultivated fields. (RTC No. 47)

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 there is no justification in the CAFO rules for an outright ban to this practice. The ED recommends not referring this issue to SOAH.

35. Whether the draft permit identifies the mode of conveyance an applicant uses to transport wastewater to third party fields. (RTC No. 48)

As a matter of law, the CAFO rules address the actual land application on third party fields and do

not regulate how the material is transported from the CAFO to any third party fields. The ED recommends not referring this issue to SOAH.

36. Whether the draft permit should include additional reporting requirements for third party fields than what is required in 30 TAC § 321.42(j). (RTC No. 49)

As raised during the comment period, this is an issue of law, there are no rules requiring CAFO operators to track yields on third party fields. 30 TAC § 321.42(j) and Section VII.A.8(e)(5)(iv) of the draft permit contain the requirements for land application on third party fields in the North Bosque River watershed. It requires that records be maintained that contain the name, locations, and amounts of manure, litter, or wastewater transferred to operators of third party fields and requires that information be submitted to the appropriate TCEQ region office on a quarterly basis. *See* 30 TAC § 321.42(j)(4). Soil sample testing on third party fields must be included in the annual report due February 15th and submitted to TCEQ. *See* 30 TAC §§ 321.46(e)(1) and 321.42(j)(3).

30 TAC § 321.42(j)(1) requires a written contract between the CAFO dairy operator and the operator of a third party field; and any such contracts should be maintained in their PPP. 30 TAC § 321.46(d) specifies the requirements for recordkeeping at the CAFO. Records must be kept on site for a minimum of five years from the date the record was created and they must be submitted to TCEQ within five days of a request by the ED.

Additional reporting requirements for third party fields beyond what is already provided in the draft permit is an attempt to change the rules through the CCH process and as such, is not an appropriate issue to refer to SOAH. The ED recommends not referring this issue to SOAH.

37. Whether the draft permit is in violation of 30 TAC § 321.42(j) by allowing sludge application on third party fields. (RTC No. 50)

As raised during the comment period, this is an issue of law. The Coalition noted in their comment letter that 30 TAC § 321.42(j) allows only manure, litter, and wastewater to be applied to third-party fields, and not sludge and disputes the ED's interpretation of this rule provision. The ED interprets 30 TAC § 321.42(j) as inclusive of sludge. 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 rational by explicitly including the term sludge when appropriate. The ED recommends not referring this issue to SOAH.

38. Whether the draft permit is required to demonstrate sustainability for the term of the permit (RTC No. 51)

As a matter of law, there are no CAFO rule requirements that LMUs be sustainable for the permit term. Long-term sustainability of a field is a planning consideration and 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. The ED recommends not referring this issue to SOAH.

39. Whether the historical waste application fields should be identified in the application or the draft permit. (RTC No. 52)

As noted in the RTC, Section VII.A.9(b)(2) of the draft 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.R. requires the Applicant to maintain a map in the 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." As raised during the comment period, the Coalition asked the ED to go beyond these requirements already included in the CAFO rules and draft permit and also require historical LMUs to be identified in the application or the permit. As a matter of law, this issue is not appropriate for adjudication at SOAH because the draft permit requirements already meet the applicable requirements. The ED recommends not referring this issue to SOAH.

40. Whether runoff containment from silage, commodity, manure, and hay storage areas should be addressed in the permit application as well as in the PPP. (RTC No. 53)

As noted in the RTC, draft permit § X.H. already addresses runoff containment from silage commodity and hay storage and states that those particular provisions will be included in the PPP. Additionally, § X.H. refers directly to the waste storage areas that are identified on Attachment A, the Site Map. As a matter of law, there are no requirements in 30 TAC Chapter 321 that require this containment to be addressed in the permit application. The ED recommends not referring this issue to SOAH.

41. Whether the description of the vegetative buffers in the draft permit complies with the applicable regulatory requirements. (RTC No. 54)

As raised during the comment period, this is an issue of law. TCEQ rules define the width of vegetative buffers, not the composition. As explained in the RTC, 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. The ED recommends not referring this issue to SOAH.

42. Whether the draft permit meets the applicable regulatory requirements in regards to addressing water quality concerns potentially caused by bacteria and other pathogens. (RTC No. 55)

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. 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 that can be applied. 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 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. The ED recommends not referring this issue to SOAH.

43. Whether the draft permit should prohibit drainage or discharges of wastewater or manure from third party fields. (RTC No. 58 partial)

As raised during the comment period, this is a question of law. Runoff from third party fields where waste is applied at agronomic rates is allowed under the Clean Water Act. Runoff from third party fields where waste is not applied at agronomic rates or applied using proper operational controls is already prohibited. In those instances, runoff would be an unauthorized discharge and subject to TCEQ enforcement action. The ED recommends not referring this issue to SOAH.

44. Whether the Applicant should be prohibited from using any third party fields in the event of any rule or permit violation in the use of a third party field. (RTC No. 58 partial)

As raised during the comment period, this is a question of law. There is no basis in the CAFO rules for including a blanket prohibition against delivery of all waste to all third party fields based on a single violation on a single third party field. However, such land application when soil phosphorus is in excess of 200 ppm or land application in excess of the agronomic rate or established application rate would be a violation of the CAFO rules and subject the operator to enforcement action by TCEQ. The ED recommends not referring this issue to SOAH.

In the event the Commission refers this case to SOAH, the ED recommends referring issues No. 1 – No. 5.

VI. Duration of the Contested Case Hearing

Should there be a contested case hearing on this permit application, the ED recommends that the duration for a hearing on this matter be for a period of nine months from the preliminary hearing to the presentation of a proposal for decision before the commission.

VII. Executive Director's Recommendation

1. Find that the Coalition has met the associational standing requirements in 30 TAC § 55.205(a) because Ms. Casselman has a personable justiciable in her own right and grant the hearing request.

2. Refer issues No. 1 - No. 5 to SOAH for a proceeding of nine months duration with the time period beginning with the preliminary hearing and concluding with presentation of a proposal for decision before the Commission.

Respectfully submitted,

Texas Commission on Environmental Quality

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REPRESENTING THE EXECUTIVE
DIRECTOR OF THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I hereby certify that on October 26, 2009 the original and seven true and correct copies of the "Executive Director's Response to Hearing Request" relating to the application of OSVE Dairy for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit Number WQ0003682000 were filed with the Chief Clerk of the TCEQ and a copy was served to all persons listed on the attached mailing list via hand delivery, facsimile transmission, email, or by deposit in the U.S. Mail.

Michael T. Parr, *Staff Attorney*
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FOR PERMIT NO. WQ0003682000
OSVE Dairy

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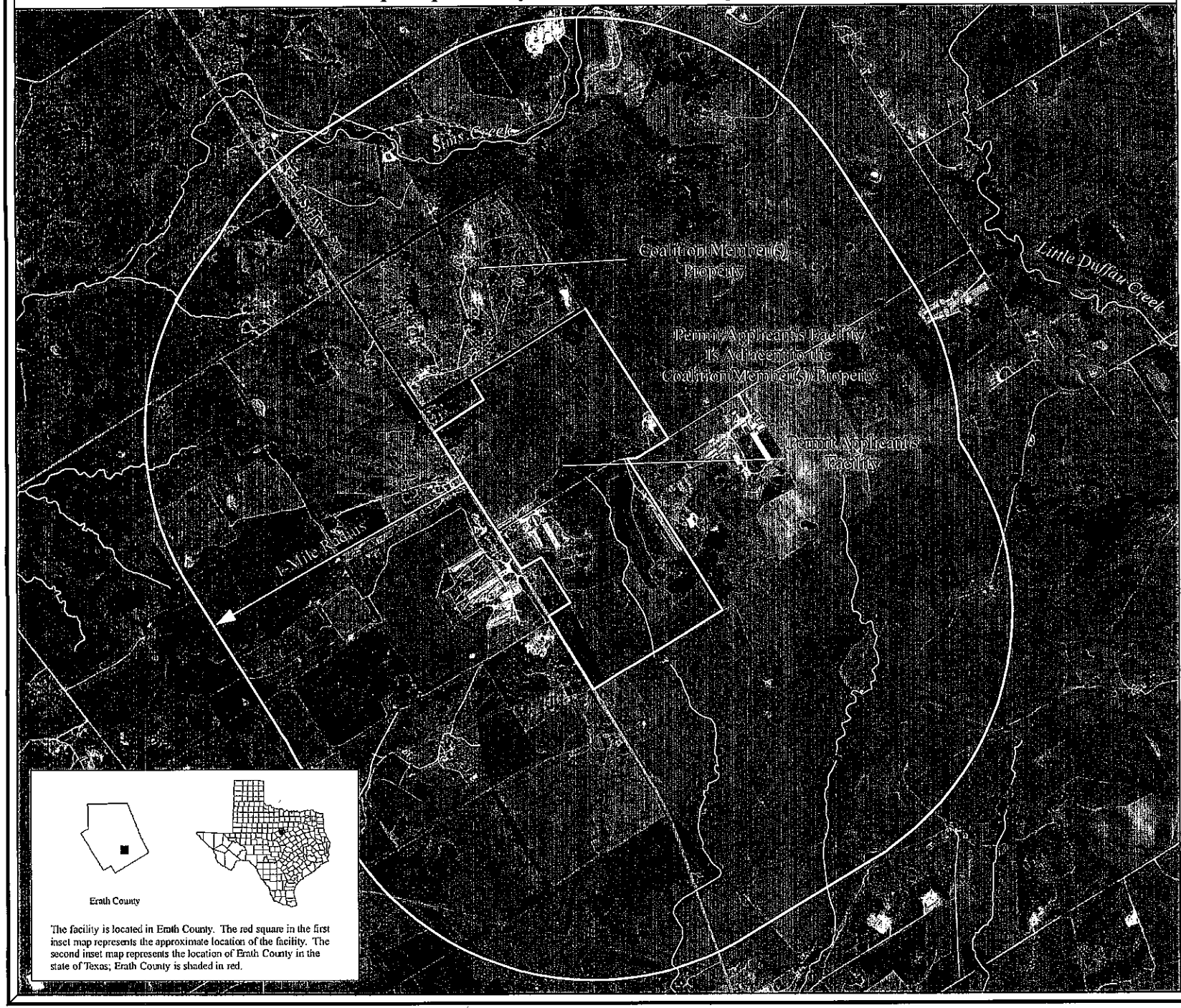
Attachment A

OSVE Dairy Map

OSVE Dairy
WQ00036820000
Map Requested by TCEQ Office of Legal Services



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

October 15, 2009

0 0.15 0.3 Miles

Projection: Texas Statewide Mapping System (TSMS)
Scale 1:30,000

Legend

Facility

☐ Coalition Member(s) Property

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 2008 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 "Permit Applicant's Facility".
(2) The approximate location of the Coalition member(s) property. This is labeled "Coalition Member(s) Property".
(3) The 1-mile radius from the Permit Applicant's facility. This is labeled "1-Mile Radius".

N

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.

M McDonough CRF-091014086

Attachment B

Fact Sheet and ED Prelim Decision

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Permit No.:	WQ0003682000
Owner:	Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen & Heidi Velsen
Regulated Activity:	Concentrated Animal Feeding Operation; dairy cattle
Type of Application:	Major Amendment
Request:	Air & 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; Section 382.051 of the Texas Clean Air Act and Commission Policies 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 a Major Amendment of Texas Pollutant Discharge Elimination System Registration No. WQ0003682000 for a Concentrated Animal Feeding Operation (CAFO) to authorize the permittee to expand an existing dairy facility from 850 head to a maximum of 1,600 head, of which 700 head are milking cows. The authorization type is being converted from a Registration to an Individual Permit, as required by 30 Texas Administrative Code Chapter 321, Subchapter B.

III. PROJECT DESCRIPTION AND LOCATION

Maximum Capacity: 1,600 total of which 700 head are milking.
Land Management Units (LMUs) (acres): LMU#1- 11, LMU#2- 70, LMU#2a- 7, LMU #3-34, LMU #4a-16, LMU #4be27, LMU #4bw-8, LMU #4c-16, LMU #5-30.

Location: The facility is located on the east side of US Highway 281, approximately 10 miles south of the city limits's sign of Stephenville in Erath County, Texas.
Latitude: 32° 6' 34"N Longitude: 98° 6' 38"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.

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

RCS #1&2 operate as a single pond.

Volume Allocations for RCS(s) (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&2	12.06	2.31	17.40	9.84	3.32	44.94	To be determined
3	5.12	0.00	0.00	0.32	0.72	6.16	To be determined

The volume allocations are determined using Natural Resource Conservation Service standards, American Society of Agricultural and Biological 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. The RCS must contain the process generated wastewater from a 21 day period or greater. RCS #1&2 is designed to contain 30 days of process generated wastewater for this permit.

Treatment volume is required to minimize odors for facilities requesting air authorization under the Air Standard Permit in 30 TAC Section 321.43. Treatment volume is based on the amount of volatile solids produced and the volatile solids loading rate. Volatile solids are solid material in waste that can be decomposed through biological, physical, and chemical activity. The rate of solids decomposition is based on temperature; therefore it varies by geographic location. The volatile solids loading rate for this facility is 5.20 pounds per day of volatile solids per 1000 ft^3 of treatment volume.

Sludge accumulation volumes are required in the RCS that receives runoff from open lots, flushwater from freestall barns, and flushwater from the milking parlor. The sludge accumulation volume for flushwater entering the RCS is based on a rate of 0.0729 cubic feet of storage capacity per pound of total solids in the wet manure entering the RCS during the design sludge accumulation period. The sludge accumulation volume allocated for runoff from open lots is estimated as 25% of the design storm volume from the open lots. A minimum of one year of sludge storage is required in the RCS. Design sludge volumes in this permit reflect a five (5) year sludge accumulation period for RCS #3 and a three (3) year sludge accumulation period for RCS #1&2.

The RCS volume designated as Water Balance is the capacity needed in addition to the Process Generated Wastewater volume 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 process generated wastewater and 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.

IV. SUMMARY OF CHANGES FROM EXISTING AUTHORIZATION

The proposed permit includes revisions to 30 Texas Administrative Code Chapter 321, Subchapter B. The authorization type is being converted from a Registration to an Individual Permit, as required by 30 Texas Administrative Code Chapter 321, Subchapter B. The permittee is requesting to increase from 850 head to 1,600 head, of which 700 head are milking cows. The proposed permit requires an increase in RCS capacity from 48.82 acre-feet to 51.10 acre-feet to accommodate the required margin of safety. Furthermore, land

application of wastewater, sludge, and/or manure must be in accordance with a nitrogen and phosphorus based nutrient management plan in accordance with United States Department of Agriculture/Natural Resource Conservation Service (NRCS) Practice Standard Code 590. For additional changes from the existing authorization, see Attachment 1.

V. WATER QUALITY PROTECTION

Although the proposed permit is allowing an increase from 850 head to 1,600 head, 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 (12.1 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 RCSs.

2. A RCS management plan is required to be implemented. This plan must establish expected end of the month water storage volumes for each 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 each RCS. An operating volume of 6.35 acre-feet (process generated wastewater volume plus the water balance volume) exceeds calculations of the maximum 30–day inflow (runoff plus process generated wastewater minus evaporation).

3. The wastewater level in the RCSs 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(s) must be maintained at or below the design sludge volume. Previously, sludge accumulation was not regulated in RCSs without treatment capacity. 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 RCSs. Proper sludge management will reduce overflows associated with insufficient wastewater storage capacity. This permit requires that sludge accumulations in the RCSs be measured at least annually beginning in year three of the permit for RCS #3 which is designed for five (5) year accumulation and annually beginning in year one (1) for RCS #1&2 which is designed for three (3) 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 commercial fertilizer, wastewater, sludge, and/or 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, runoff class, 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 considers the nitrogen and phosphorus inputs from the organic wastes, the soil content of these plant nutrients and the phosphorus loading potential into watercourses for each LMU. Once the nutrients are in balance, there is minimal potential to have excess nutrients available to leave the site and affect water quality. 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 nitrogen and phosphorus, whereas the previous land application rates were based on the nitrogen requirement of the crop. Implementation of a NMP will ensure that nitrogen will not be land applied beyond the amount needed to achieve the stated target crop yields and that phosphorus loss in surface runoff will be minimized and will not exceed the limits defined by the NRCS Practice Standard 590. Further, implementation of the NMP will define the amount of excess waste to be exported thus lowering the potential for land applied nutrients to enter surface waters. Record keeping and reporting requirements, such as the amount of manure produced, amount of wastewater, sludge, and/or 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. Exported 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 #	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip flow length (feet)
1	100	30
2	Not Applicable	
2a	100	30
3	100	30
4a	100	30
4be	100	30
4bw	100	30
4c	100	30
5	100	30

5. The table below illustrates numbers from the permittee's NMP, dated 5/29/2008, to compare the maximum application rate versus the planned application rate. 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 P_2O_5 (lbs/ac)	Proposed Annual P_2O_5 (lbs/ac)	% of Max Allowable
1	147	103	26	25%
2	43	51	26	50%
2a	55	103	26	25%
3	107	51	26	50%
4a	134	103	26	25%
4be	57	103	73	71%
4bw	56	103	72	70%
4c	208	85	0	0
5	86	51	39	75%

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 are 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 AgriLife 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/or 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/or manure is applied; basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients and amount of nutrients on a dry weight basis other than wastewater, sludge, and/or manure; 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.

Although the proposed permit authorizes an expansion from 850 head to 1,600 head, 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. Regardless of the number of head, 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 a 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 each 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 the North Bosque River in Segment No. 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 No. 1226 are contact recreation, public water supply, high aquatic life use, and 5.0 mg/L dissolved oxygen.

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.

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 target agronomic crop yields. 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 management plans determine the nutrient application rate based on nitrogen and phosphorus, whereas the current authorization allows land application rates based on the nitrogen requirement of the crop. The implementation of these enhanced nutrient management plans and best management practices for phosphorus reduction 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. RCSs must be designed to contain the volume associated with a 25 year/10 day rainfall event,
2. installation of a permanent marker, graduated in one-foot increments beginning from the bottom of the RCS to the top of the 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 to be submitted to the TCEQ, and
7. a report of discharges to 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*, contains a statement indicating 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 width 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 May 9, 2007 and subsequent revisions
2. TCEQ Registration No. WQ0003682000 issued December 10, 2002
3. Interoffice Memorandum from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division, dated September 16, 2008
4. Interoffice Memorandum from the Water Quality Standards Team, Water Quality Assessment Section, Water Quality Division, October 9, 2008
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/or 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 a RCS;

3. a discharge resulting from a chronic rainfall event from a 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
BdC: Bolar Denton Complex	Slow water movement Depth to bedrock	Land application not to exceed agronomic rates and soil infiltration rates Maintain cover crop in LMUs
HeB: Hensley	Depth to bedrock Droughty Slow water movement	Land application not to exceed agronomic rates and soil infiltration rates Maintain cover crop in LMUs No land application to inundated soils
HoB: Houston	Slow water movement	Land application not to exceed agronomic rates and soil infiltration rates Maintain cover crop in LMUs No land application to inundated soils
Ma: Maloterre PcB: Purves Pd: Purves-Dugout	Droughty Depth to bedrock	Land application not to exceed agronomic rates and soil infiltration rates Maintain cover crop in LMUs No land application to inundated soils
WaB: Hassee	Slow water movement Depth to saturated zone	Land application not to exceed agronomic rates and soil infiltration rates Maintain cover crop in LMUs No land application to inundated soils

Hensley and Purves clay soils with 1-3 % slope have been identified by the NRCS as highly erodible land (HEL). If erosion is detected, the LMUs will be protected with conservation farming practices within the standards of NRCS.

The table below lists all wells on the facility, their status, and what measure will be taken to protect groundwater. A Well Buffer Exception request for Wells #2, #3, #4 and #8 was submitted to and approved by the TCEQ Water Quality Assessment Team.

Well Number	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Producing	To be plugged
3	Producing	To be plugged
4	Producing	Concrete slab, located 100 ft up-gradient of the pens
5	Producing	Maintain 150 ft buffer
6	Producing	Maintain 100 ft buffer for irrigation wells
7	Producing	Maintain 100 ft buffer for irrigation wells
8	Producing	Concrete slab and a steel sleeve, located 50 ft of the dairy barn

2. Each 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. Upon modification of all existing RCSs a liner certification, certified by a professional engineer must be submitted.

3. RCS design criteria must include volumes for the design rainfall event, sludge, process generated wastewater, and treatment volume for the air standard permit to meet "best available technology economically achievable" and "best practicable control technology". 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 each RCS.

4. The modified RCSs 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. RCSs without spillways 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/or 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 RCSs must be minimized. The site includes berms to direct contaminated runoff into the RCSs as well as prevent uncontaminated stormwater runoff from entering the RCSs.

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 with phosphorus inputs not to exceed ceiling levels as described in the nutrient management plan, 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/or 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/or 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/or 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
CAFO Permits Team
Water Quality Assessment Section
Water Quality Division

Date

Attachment 1

	Existing Authorization #3682 issued December 10, 2002	Proposed permit
Head Count	850	1,600
RCS Required Capacity (acre-feet)	48.82	51.10
RCS Actual Capacity (acre-feet)	48.82	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
Sludge monitoring	not required	Sludge volume accumulations measured as needed first two years, then annually beginning in year 3 of the permit.
Chronic discharge determination	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 each 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

Attachment C

Draft Permit

TPDES Permit No. WQ0003682000
This Permit supersedes and replaces Registration No. WQ0003682000 issued on December 10, 2002.
[*For TCEQ use only EPA ID No. TX0126608*]

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 and
Section 382.051 of the Texas Clean Air Act

I. Permittee:

A.	Owner	Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen & Heidi Velsen
B.	Business Name	Osve Dairy
C.	Owner Address	248 County Road 231 Hico, Texas, 76457

II. Type of Permit: Major Amendment / Air & Water Quality

III. Nature of Business Producing Waste: Concentrated Animal Feeding Operation (CAFO); dairy cattle; SIC No. 2410

IV. General Description and Location of Waste Disposal System:

Maximum Capacity: 1,600 total head of which 700 are milking cows.
Site Plan: See Attachment A and B.
Retention Control Structures (RCS) total required capacities without freeboard (acre-feet):
RCS #1&2-44.94, RCS #3-6.16; RCS #1&2 operate as a single pond.
Land Management Units (LMUs) (acres): LMU#1-11, LMU#2-70, LMU#2a-7, LMU#3-34, LMU# 4a-16, LMU# 4be-27, LMU #4bw-8, LMU# 4c-16, LMU#5-30; See AttachmentC for locations.
Location: The facility is located on the east side of US Highway 281, approximately 10 miles south of the city limits's sign of Stephenville, Erath County, Texas.
Latitude: 32E 6= 34@N Longitude: 98E 6= 38@W. See Attachment D.
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.** The permittee shall comply with the requirements listed in Section VII.D. of this permit and shall:

1. maintain a minimum treatment capacity of 17.40 acre-feet in RCS #1&2;
2. identify the maximum sludge volume and the minimum treatment volume on the permanent pond marker in RCS #1&2;
3. maintain a copy of the odor control plan in the Pollution Prevention Plan; and
4. include a stage storage table for the treatment pond in the RCS Management Plan.

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 and/or the maximum number of milking cows;

(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; dead animal burial sites; RCSs or other control facilities; LMUs; water wells, abandoned and in use, which are on-site or within 500 feet of the facility boundary; and all springs, lakes, or ponds located on-site or within one mile of the facility boundary.

(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.

(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 RCSs. Incidental amounts of such substances entering a RCS as a result of stormwater transport of properly applied chemicals is not a violation of this 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 RCSs which meet the above criteria.

(b) Monitoring Requirements. The permittee shall sample and analyze all discharges from RCSs 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 modified RCSs (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 each RCS prior to use and kept on-site in the PPP. Once modification is complete, new capacity and liner certifications for all RCSs and settling basins will be provided.

(b) Design and Construction Standards. The permittee shall ensure that each 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 RCSs.

(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 each RCS, including embankment and liners.

(2) Design Rainfall Event. Each 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 12.1 inches.

(3) Any 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 RCSs on a regular schedule. Equipment capable of dewatering the RCSs 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(s) have a depth of water impounded against the embankment at the spillway elevation of three feet or more, therefore the RCS(s) are 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 all modified portions of existing RCSs.

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

(2) Embankment Lifts. The embankment shall be constructed in lifts or layers no more than eight (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 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 RCSs, which are 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.

(6) Embankment Protection. The modified RCSs 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. RCSs without spillways must have a minimum of two (2) vertical feet between the top of the embankment and the required storage capacity.

(g) RCS Liner Requirements. For all new construction and for all structural modifications of existing RCS(s), the RCS must have a liner consistent with one of the following:

(1) In-situ Material. In-situ material is undisturbed, in-place, native soil material. In-situ materials must at least meet the minimum criteria for hydraulic conductivity and thickness and specific discharge as described in Section VII.A.3(g)(2) of this permit. Samples shall be collected and analyzed in accordance with Section VII.A.3(g)(3) of this permit. This documentation must be certified by a licensed Texas professional engineer or licensed Texas professional geoscientist.

(2) Constructed or Installed Liner.

(i) Constructed or installed liners must be designed by a licensed Texas professional engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas professional engineer. Compaction tests and post construction sampling and analyses, conducted in accordance with Sections VII.A.3(f)(4) and VII.A.3(g)(3) of this permit, will provide support for the liner certification.

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

(iii) Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements as listed in Section VII.A.3(f)(1), (2), and (4) of this permit.

(3) Liner Sampling and Analyses.

(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 undisturbed sample shall be collected per plan surface acre 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, and proportional to the surface area of the

sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.

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

(4) 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. Special Considerations for Existing RCS(s). An existing RCS that has been properly maintained without any modifications and has no apparent structural problems or leakage is considered to be properly designed with respect to the embankment design and construction and liner requirements of this permit, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, the RCS must be certified by a licensed professional Texas engineer as providing protection equivalent to the requirements of this permit.

5. Operation and Maintenance of RCS

(a) RCS Operation and Maintenance

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

(2) The permittee shall implement an 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 each 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 each 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 each 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 each 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.8.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 a 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 predetermined minimum treatment volume of the RCS, or the bottom of the RCS for those without treatment volume, to the top of the embankment or spillway; and

(iii) design volume levels for maximum sludge accumulation and operating volume (calculated process generated wastewater plus 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. (See Special Provision X.E for additional requirements related to sludge monitoring.) 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. Sludge may only be beneficially utilized by land application to a LMU if in accordance with a nutrient management plan or disposed of in accordance with Section VII.A.8(e) of this permit.

(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.

6. General Operating Requirements
   (a) Flush/Scrape Systems. Flush/scrape systems shall be flushed/scraped in accordance with design criteria in the application.
   (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 RCSs.
   (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. [See Special Provision X.G. for the storage requirements applicable to slurry collected from freestall barns.]
      (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 a 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 a RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from leaving the storage area. All storage sites and structures located outside the drainage area shall be designated on the site map.

(4) Temporary storage of manure or sludge shall not exceed thirty (30) days and is allowed only in LMUs or a RCS drainage area. Temporary storage of manure and sludge 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 is prohibited on this CAFO unless this permit is amended to include composting requirements.

7. 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 permittee may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are in accordance with the facility's approved recharge feature evaluation and certification. Buffer zone variance documentation must be kept on-site and made available to TCEQ personnel upon request. A Well Buffer Exception request for Wells #2, #3, #4 and #8 was submitted to and approved by the TCEQ Water Quality Assessment Team.

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

Well Number*	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Producing	To be plugged
3	Producing	To be plugged
4	Producing	Concrete slab, located 100 ft up-gradient of the pens
5	Producing	Maintain 150 ft buffer
6	Producing	Maintain 100 ft buffer for irrigation wells
7	Producing	Maintain 100 ft buffer for irrigation wells
8	Producing	Concrete slab and a steel sleeve, located 50 ft of the dairy barn

*Well Numbers correspond with Attachment E.

8. 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/or 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 AgriLife 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/or manure within the buffer distances as noted on Attachment C 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.7.

(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 incorporated; 0-2 or 2-6 inch not incorporated) 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 incorporated; 0-2 or 2-6 inch not incorporated) 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 incorporated; 0-2 or 2-6 inch not incorporated) depth is greater than 150 ppm phosphorus and less than 200 ppm phosphorus.

(F) Before commencing manure, wastewater, 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 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. For third-party fields that have not received wastewater, sludge, and/or manure during the preceding year, initial sampling must be completed before re-starting land application to the third-party field.

(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/or manure is prohibited from a LMU, unless authorized under Section VII.A.5(a)(4).

(ii) Where wastewater, sludge, and/or 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 wastewater, sludge, and/or manure application. In areas with an occupied residence within one quarter (0.25) of a mile from the outer boundary of the actual area receiving wastewater, sludge, and/or manure 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/or manure is prohibited between 12a.m. and 4a.m.

9. 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/or manure application to LMUs, the permittee shall have at least one representative soil sample from each of the LMUs 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 ASoil 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 AgriLife 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.

(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 slurry, is physically incorporated or injected directly into the soil) or 0-2 inches (where the manure, sludge or slurry is not incorporated into the soil). Wastewater is considered to be incorporated upon land application if it is less than two percent (2%) solids. Slurry from freestall barns is treated like manure for this sampling requirement. 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).

10. 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 a RCS.

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

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

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

11. 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/or 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 each 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 RCSs, 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.

D. Air Standard Permit Requirements

1. Air emission limitations.
   (a) Facilities shall be operated in such a manner as to prevent the creation of a nuisance as defined by Texas Health and Safety Code, 30 TAC §§341.011 and 321.32(32), and as prohibited by 30 TAC §101.4. Facilities shall be operated in such a manner as to prevent a condition of air pollution as defined by Texas Health and Safety Code, 30 TAC §382.003(3).
   (b) The permittee shall take necessary action to identify any nuisance condition that occurs. The permittee shall take action to abate any nuisance condition as soon as practicable or as specified by the executive director.
2. Wastewater treatment. The permittee shall design and operate RCSs to minimize odors in accordance with accepted engineering practices. Each RCS shall be operated in accordance with the design and an operation and maintenance plan that minimizes odors. The primary lagoon in a multi-stage lagoon system shall be designed with a minimum treatment volume so that the lagoon maintains a constant level at all times unless prohibited by climatic conditions. A multi-stage lagoon system shall be designed to minimize the amount of contaminated storm water runoff entering the primary lagoon by routing the contaminated storm water runoff into a secondary RCS.

3. Dust control. To minimize dust emissions, the CAFO shall be operated and maintained as follows.
   (a) Fugitive emissions from all grain receiving pits, where a pit is used, shall be minimized through the use of Achoke feeding@ or through an equivalent method of control. If choke feeding is used, operation of conveyors associated with receiving shall not commence until the receiving pits are full.
   (b) As necessary, emissions from all in-plant roads, truck loading and unloading areas, parking areas, and other traffic areas shall be controlled with one or more of the following methods to minimize nuisance conditions and maintain compliance with all applicable commission requirements:
      (1) sprinkled with water;
      (2) treated with effective dust suppressant(s); or
      (3) paved with a cohesive hard surface and cleaned.
   (c) All non-vehicular external conveyors or other external conveying systems associated with the feedmill shall be enclosed.
   (d) On-site feed milling operations with processing equipment using a pneumatic conveying system (which may include, but are not limited to, pellet mill/pellet cooler systems, flaker systems, grinders, and roller-mills) shall vent the exhaust air through a properly-sized high efficiency cyclone collector or an equivalent control device before releasing the exhaust air to the atmosphere. This requirement does not include cyclones used as product separators.
   (e) If the executive director determines that the implementation and employment of these practices is not effective in controlling dust, the permittee shall implement any necessary additional abatement measures to control and minimize this contaminant within the time period specified by the executive director.
4. Maintenance and housekeeping. The permittee shall comply with the following to help prevent nuisance conditions.
   (a) The premises shall be maintained to prevent the occurrence of nuisance conditions from odors and dust. Spillage of any raw products or waste products causing a nuisance condition shall be picked up and properly disposed of daily.
   (b) Proper pen drainage shall be maintained at all times. Earthen pen areas shall be maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding.

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 each RCS, as shown on the depth marker. In circumstances where a 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/or manure applied on LMUs. Such records must include the following information:
      (i) date of wastewater, sludge, and/or 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/or 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/or 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 a 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 a 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/or 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 modify all existing RCSs 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 RCSs.

Volume Allocations for RCS(s) (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&2	12.06	2.31	17.40	9.84	3.32	44.94	To be determined
3	5.12	0.00	0.00	0.32	0.72	6.16	To be determined

2. Compliance Schedule. All RCS modifications required by this permit shall be completed within 180 days after the issuance date of this permit and prior to exceeding 850 head. Upon written request to the TCEQ Regional Office, the Executive Director may grant an extension to the 180 day requirement. However, all modifications must be completed prior to exceeding 850 head.
3. Once modification of all RCSs is completed, the RCS management plan will be developed and implemented within thirty (30) days.
4. All certifications required by Section VII.A.3(a) of this permit shall be submitted to the TCEQ Regional Office and CAFO Permitting, Water Quality Division (MC150) within 30 days of completing modifications.

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 record 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.

1. date of wastewater, sludge, and/or 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/or 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/or 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 C specifically describes the location and distance requirements for all buffers.

LMU #	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip flow length (feet)
1	100	30
2	Not Applicable	
2a	100	30
3	100	30
4a	100	30
4bw	100	30
4be	100	30
4c	100	30
5	100	30

E. The sludge volume in each RCS will be measured and recorded in the PPP as necessary, but at least annually beginning in year three (3) of the permit for RCS #3 and annually beginning in year one (1) for RCS #1&2.

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. Slurry removed from freestall barns must be stored within the drainage area of an RCS, and the storage area must be large enough to prevent overflow into settling basins and/or RCSs. Any overflow of these storage basins shall be recorded in the PPP and notification shall be provided to the regional office within thirty (30) days. Based on review of the information this permit may be formally amended to require additional controls or other requirements.

H. Settling basin solids.
   1. For the purpose of this permit, settling basin solids shall be defined as manure.
   2. If settling basin solids are land applied, an annual sample must be collected and analyzed in accordance with Section VII.A.9(a), in addition to other manure and wastewater.

I. 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 RCSs.

J. During the annual site inspection, the permittee will inspect the integrity of the concrete slab and well head of well #4 and #8. Integrity compromises, such as the cement slab cracking, sanitary seal deterioration or cracks in the well casing will be repaired. Fertilizers and pesticides will not be stored in any structure that houses the water wellhead.

K. Within 180 days of permit issuance, the permittee will plug water wells #2 and #3, as shown on Attachment E, in accordance with 16 TAC 76 water well drilling rules. A copy of the plugging report and abandoning report will be retained in the onsite PPP.

L. Sludge must be analyzed for nutrient content prior to routing offsite for any land application. The analysis for each haul off shall be maintained in the PPP.

M. Upon issuance of the permit, the NMP must be updated with the most recent soil, manure, and wastewater analyses. For LMUs that have a phosphorus level in the soil of more than 200 ppm, a NUP must be developed or updated in accordance with Section VII.A.8(c).

N. Manure and settled solids accumulations in the settling basin must be removed on a regular and consistent basis so as to assure attainment of the designed removal efficiency.

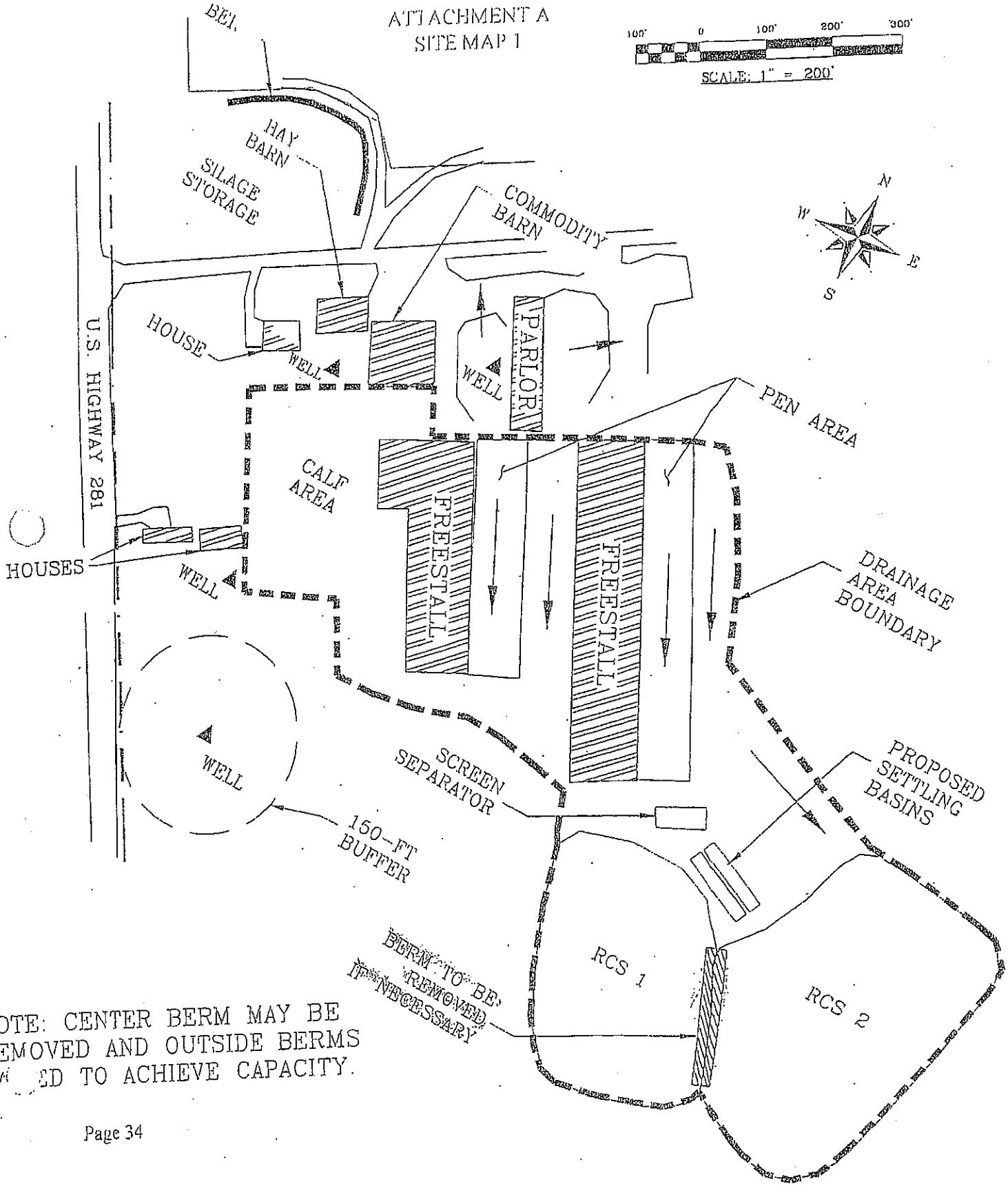
O. A LMU map showing historical LMUs shall be maintained in the PPP.

P. Irrigation of wastewater from the LMU #1 center pivot sprinkler is prohibited over the buffered areas. Cut-off points for center pivot in LMU #1 must be clearly identified on the surface of the LMU.

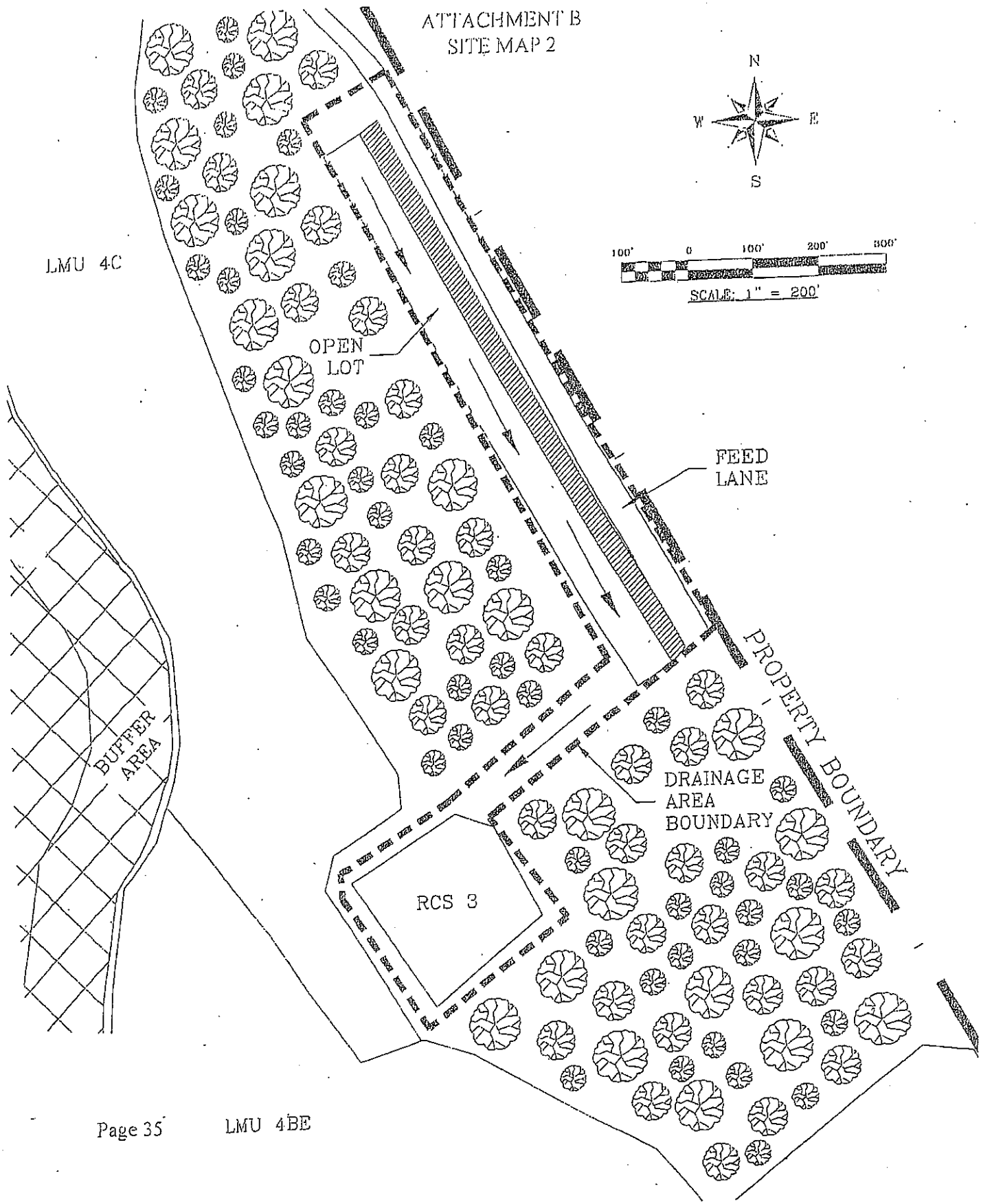
Q. There will be no process generated wastewater or wash water entering RCS #3 from the confinement area at any time.

R. Freestall barns must be flushed with recycled process water.

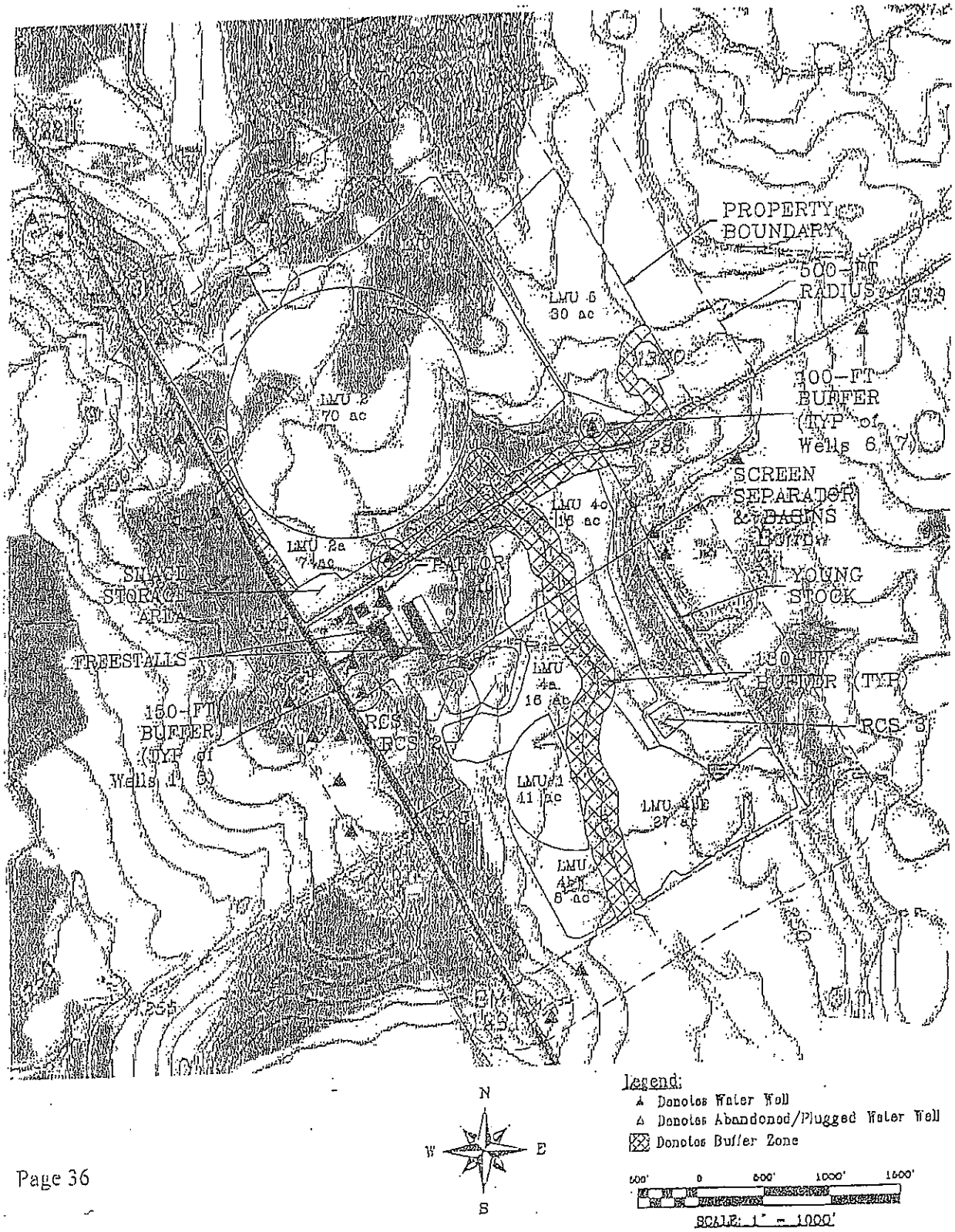
S. The freestall barns shall be guttered so that all runoff so that all roof runoff is diverted outside the RCS drainage area.



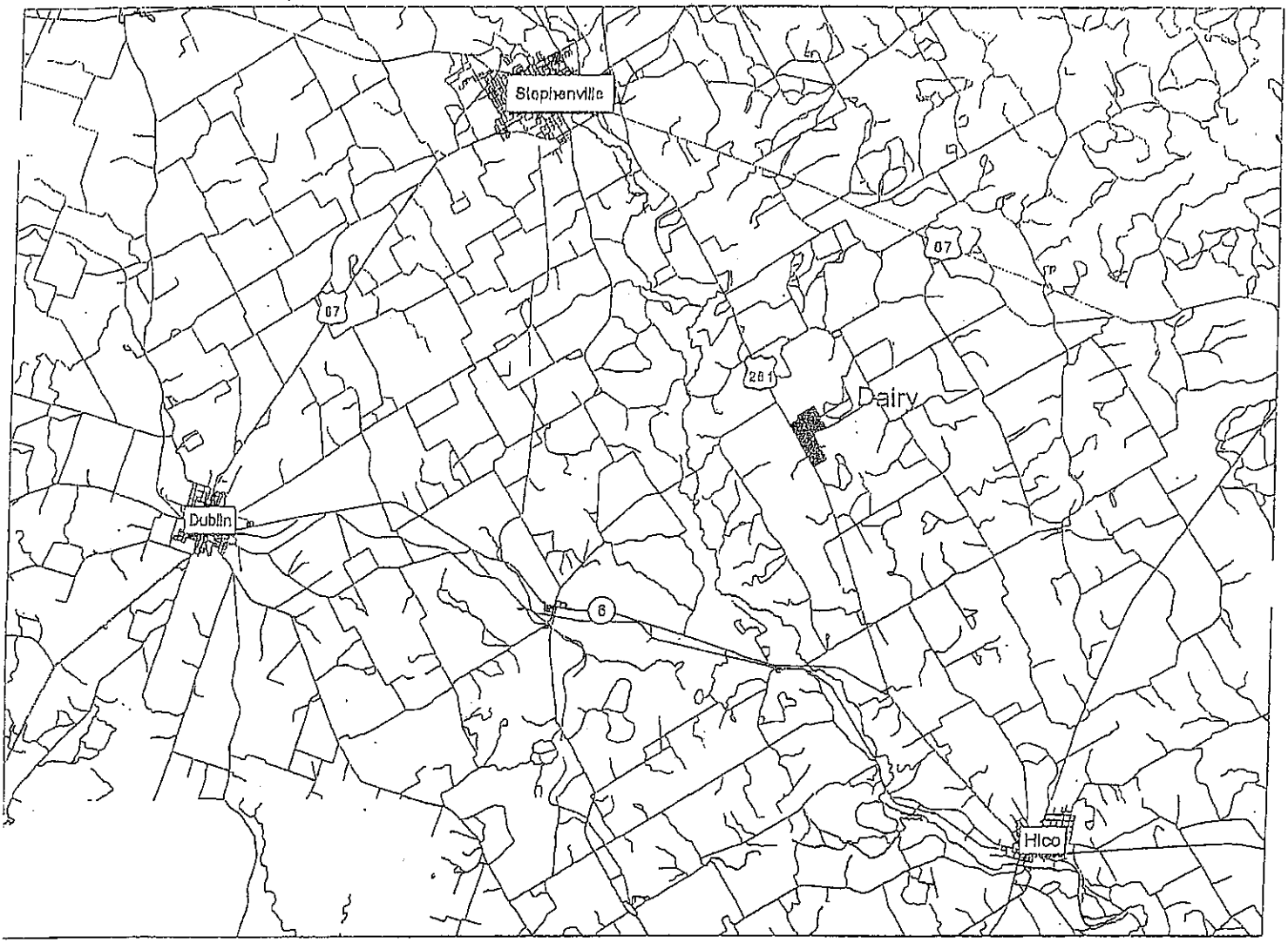
NOTE: CENTER BERM MAY BE REMOVED AND OUTSIDE BERMS RAISED TO ACHIEVE CAPACITY.


ATTACHMENT B
SITE MAP 2
N
W
E
S
100' 0 100' 200' 300'
SCALE: 1" = 200'
LMU 4C
OPEN LOT
FEED LANE
PROPERTY BOUNDARY
BUFFER AREA
DRAINAGE AREA BOUNDARY
RCS 3
LMU 4BE

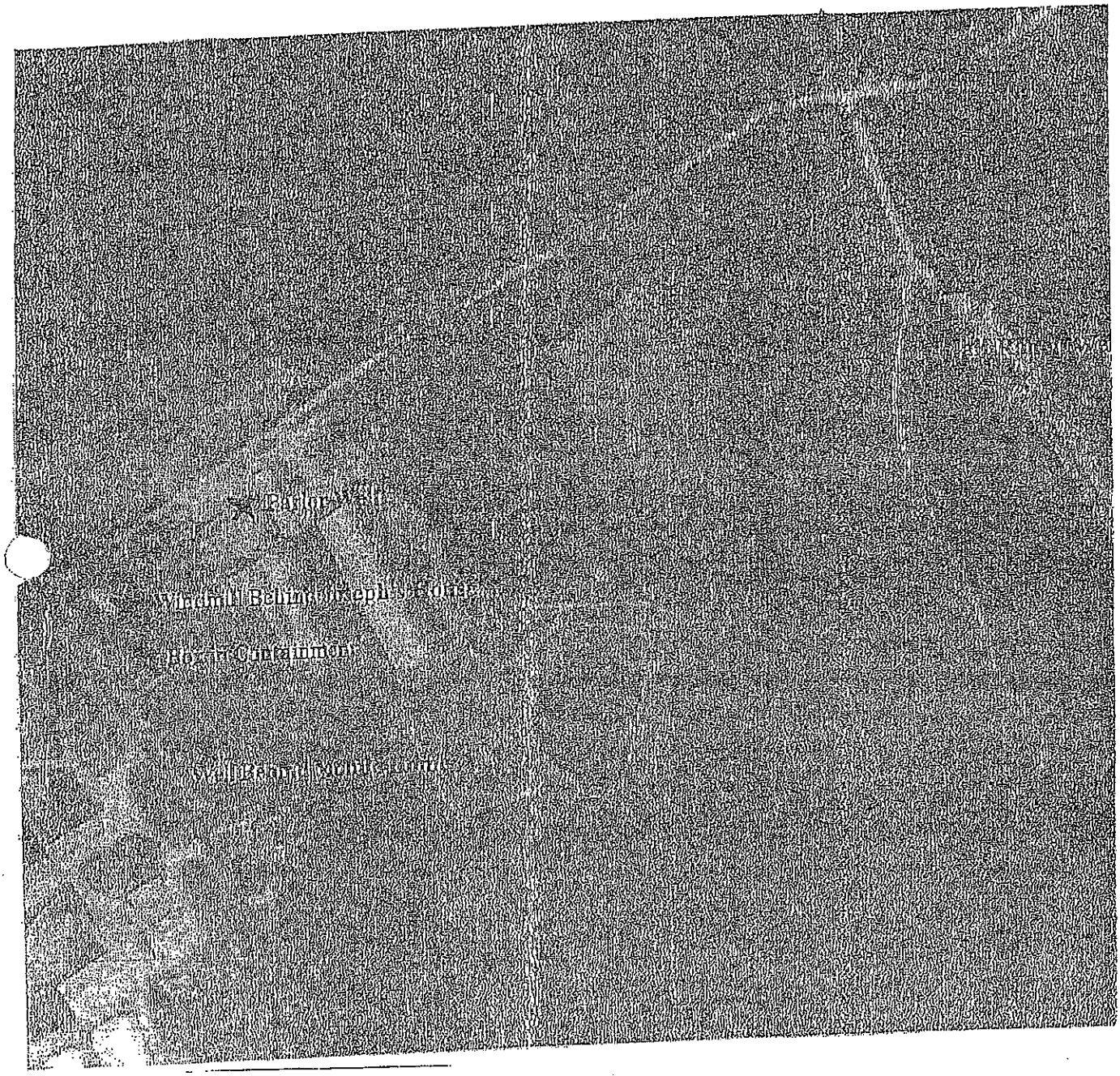
ATTACHMENT C
LAND APPLICATION AREAS



ATTACHMENT D
VICINITY MAP



ATTACHMENT E
WELL LOCATION MAP



Attachment D

RTC

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 3, 2009

TO: Persons on the attached mailing list.

RE: Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen, & Heidi Velsen dba Osve Dairy
TPDES Permit No. WQ0003682000

Decision of the Executive Director.

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at the Stephenville Public Library, 174 North Columbia, Stephenville, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

How To Request a Contested Case Hearing.

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

(1) Your name, address, daytime telephone number, and, if possible, a fax number.

(2) If the request is made by a group or association, the request must identify:
   (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and
   (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.

(3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.

(4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

How To Request Reconsideration of the Executive Director's Decision.

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

Deadline for Submitting Requests.

A request for a contested case hearing or reconsideration of the executive director's decision must be **received by** the Chief Clerk's office no later than **30 calendar days** after the date of this letter. You may submit your request electronically at http://www.tceq.state.tx.us/about/comments.html or by mail to the following address:

LaDonna Castañuela, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Processing of Requests.

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

How to Obtain Additional Information.

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance, Toll Free, at 1-800-687-4040.

Sincerely,

LaDonna Castañuela
Chief Clerk

LDC/lg

Enclosures

MAILING LIST
For
Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen,
& Heidi Velsen dba Osve Dairy
TPDES Permit No. WQ0003682000

FOR THE APPLICANT:

Joseph Wilson Osinga,
Jennifer Sheree Osinga
Bert Marcel Velsen and Heidi Velsen
Osve Dairy
P.O. Box 500
Dublin, Texas 76446-0500

Norman Mullin
Enviro-ag Engineering, Inc.
3404 Airway Boulevard
Amarillo, Texas 79118-7741

PROTESTANTS/INTERESTED PERSONS:

Richard and Suzanne Webb
17299 S US Highway 281
Hico, Texas 76457-3738

Lauren Kalisek
Lloyd Gosselink
816 Congress Avenue, Suite 1900
Austin, Texas 78701-2442

FOR THE EXECUTIVE DIRECTOR
via electronic mail:

Michael T. Parr, Staff Attorney
Texas Commission on Environmental Quality
Environmental Law Division MC-173
P.O. Box 13087
Austin, Texas 78711-3087

Jamie Saladiner, Technical Staff
Texas Commission on Environmental Quality
Water Quality Division MC-148
P.O. Box 13087
Austin, Texas 78711-3087

FOR OFFICE OF PUBLIC ASSISTANCE
via electronic mail:

Bridget Bohac, Director
Texas Commission on Environmental Quality
Office of Public Assistance MC-108
P.O. Box 13087
Austin, Texas 78711-3087

FOR PUBLIC INTEREST COUNSEL
via electronic mail:

Blas J. Coy, Jr., Attorney
Texas Commission on Environmental Quality
Public Interest Counsel MC-103
P.O. Box 13087
Austin, Texas 78711-3087

FOR THE CHIEF CLERK
via electronic mail:

LaDonna Castañuela
Texas Commission on Environmental Quality
Office of Chief Clerk MC-105
P.O. Box 13087
Austin, Texas 78711-3087

Proposed Amended TPDES Permit No. WQ0003682000

Application by	§	Before the
Joseph Wilson Osinga, Jennifer Sheree	§	
Osinga, Bert Marcel Velsen & Heidi	§	**TEXAS COMMISSION ON**
Velsen dba Osve Dairy	§	
for **TPDES Permit No. WQ0003682000**	§	**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 application by Joseph Wilson Osinga, Jennifer Sheree Osinga, Bert Marcel Velsen & Heidi Velsen dba Osve Dairy (Applicant) for a major amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No.WQ0003682000 and on the ED's preliminary decision on the application. As required by Title 30 of the Texas Administrative Code (30 TAC) Section (§) 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant, comments. The Office of Chief Clerk timely received comment letters from The City of Waco (The City) and Richard and Suzanne Webb (The Webb's). This Response addresses all 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 for a major amendment to TPDES Permit No.WQ0003682000 that would authorize the permittee to expand an existing dairy facility from 850 head to a maximum of 1,600 head, of which 700 head are milking cows. The facility is located on the east side of US Highway 281, approximately 10 miles south of the city limit sign of Stephenville, 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 application was received on May 9, 2007, and declared administratively complete on July 20, 2007. Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published August 2, 2007 in the *Stephenville Empire Tribune*. The ED completed the technical review of the application and prepared a draft permit. Notice of Application and

Preliminary Decision for a Water Quality Permit (NAPD) was published November 16, 2008 in the *Stephenville Empire Tribune* and the comment period closed December 15, 2008. This application is subject to the procedural requirements adopted pursuant to House Bill 801 (76th Legislature, 1999).

COMMENTS and RESPONSES

COMMENT 1

The Webb's comment that they cannot enjoy their property, namely their yard and pool, because of the contaminated air, strong odor, dust, and the large number of flies that originate from the dairy." The Webb's comment that expanding the dairy will only serve to exacerbate the already existing problems.

RESPONSE 1

Section VII.D of the draft permit contains provisions related to air quality. The draft permit prohibits the facility from creating a nuisance. TCEQ's CAFO rules define a nuisance as:

> Any discharge of air contaminant(s) including, but not limited to, odors of sufficient concentration and duration that are or may tend to be injurious to or that adversely affects human health or welfare, animal life, vegetation, or property, or that interferes with the normal use and enjoyment of animal life, vegetation, or property. *See* 30 TAC § 321.32(32).

The draft permit also requires the Applicant to take necessary action to abate any nuisance condition as soon as practical or as specified by the ED. Section VII.D.2. and VII.D.3. of the draft permit provides specific requirements related to dust control, maintenance, and housekeeping to reduce or prevent nuisance conditions. Nuisance conditions include, but are not limited to, the discharge of air contaminants or excessive odors.

The draft permit requires the Applicant to maintain a portion of their RCS volume for anaerobic treatment process generated wastewater. Treatment volume is required to minimize odors for facilities requesting air authorization under the Air Standard Permit in 30 TAC § 321.43. Treatment volume is based on the amount of volatile solids produced and the volatile solids loading rate. Volatile solids are solid material in waste that can be decomposed through biological, physical, and chemical activity. The rate of solid decomposition is based on temperature; therefore it varies by geographic location. The volatile solids loading rate for this facility is 5.20 pounds per day of volatile solids per 1000 ft^3 of treatment volume.

Individuals are encouraged to report any concerns about nuisance issues or suspected noncompliance with the terms of any permit or other environmental regulation by contacting

the TCEQ's Stephenville Special Projects Office at 254-965-9200, or by calling the 24-hour toll-free TCEQ Environmental Complaints Hotline at 1-888-777-3186. The TCEQ investigates all complaints received. If the facility is found to be out of compliance with the terms and conditions of its permit, it is subject to enforcement action.

COMMENT 2

The Webb's comment that they have to drill 400 feet to get clean water and that the level is increasing to 600 feet. They comment that they must have a supply of clean water and if the dairy is expanded their supply of drinking water will be reduced even more.

RESPONSE 2

In the wastewater permitting process, TCEQ is tasked by the Legislature with protecting the quality of the water in the state. Water supply is not a factor in determining whether an Applicant has met all of the statutory and regulatory criteria applicable to a wastewater permit.

COMMENT 3

The Webb's comment that the dairy produces a great volume of wastewater, which has the potential to contaminate the stream, rivers, and drinking water, and that if the dairy is expanded the chance of contamination is greater. They are concerned that all the runoff is not contained in the RCSs.

RESPONSE 3

No discharge is authorized except when chronic or catastrophic rainfall, or catastrophic conditions cause an overflow from a properly designed, constructed, operated, and maintained RCS.

The RCSs must be designed by a professional engineer to contain all runoff from open lot pens and wash water from the milking parlor. Process generated wastewater is the wash water from the milking parlor and is directed, by an underground pipe, to the settling basin and then to the RCSs. All manure must be stored within the drainage area or bermed to contain runoff from a 25-year, 10-day rainfall event (approximately 12.0 inches).

This draft permit requires that the Applicant implement an RCS management plan and maintain a copy in the Pollution Prevention Plan (PPP) as required by 30 TAC § 321.42(g). The RCS management plan must establish expected end of the month water storage volumes for each RCS. These maximum levels are based on the design assumptions used to determine the required size of the RCSs. This plan assures that the Applicant will maintain wastewater volumes within the design capacity of the structures. The Applicant 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 RCSs will be less likely to encroach into the volume reserved for the design rainfall event.

To prevent contamination of groundwater, the RCSs at the CAFO must be adequately lined and certified by a professional engineer. A valid liner protects the groundwater from the wastewater stored in the RCSs.

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.

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

The recharge feature certification submitted in the permit application identified eight wells located onsite. Two of these wells will be plugged within 180 days of permit issuance. The Applicant will have to maintain a 150 foot buffer between land application areas and all other water wells or must have additional protective measures to protect groundwater from contamination.

COMMENT 4

The Webb's comment that dairy operations have drastically decreased the value of their property and any further expansion will decrease the value of their property even more.

RESPONSE 4

The TCEQ's jurisdiction is established by the Legislature and is limited to the issues set forth in statute. Accordingly, the TCEQ does not have jurisdiction to consider zoning or effects on property values when determining whether to approve of deny a permit application. Except under limited circumstances, which do not exist under this particular permit application, the issuance of a permit cannot be denied on the basis of the facility location.

COMMENT 5

The City comments that the Applicant used two different efficiencies for its screen separator in the storage volume calculations and that the calculations need to be corrected. The City also comments that the TCEQ should require the Applicant to provide the model information for its screen separator and submit the data the Applicant relied upon in its estimation of screen separator efficiency so the information can be evaluated.

RESPONSE 5

The model information for the screen separator has since been provided by the Applicant. The information is now in the permit file for this application. No change to the calculations or draft permit was needed.

COMMENT 6

The City comments that because the system is a multiple cell lagoon operating in a series and the Applicant did not include volume allocations for RCS No.1 & 2, the volume allocations should be re-calculated based on individual allocations made for each RCS. The City also suggests that the TCEQ require the Applicant to determine the number and sizes of RCSs, and how each will be expected to operate, before an application is deemed technically, if not administratively complete. The City recommends that the TCEQ remove all provisions from the draft permit that would allow the Applicant to combine RCS No.1 with No.2.

In addition, the City suggests that the TCEQ should require the Applicant to redesign the facility in a manner that will allow open lot runoff to flow into a secondary RCS as well as the proposed primary RCS, as 30 TAC §321.43(j)(3)(B)(i) dictates. The City comments that because RCS No.1 will receive process wastewater and open lot runoff, the minimum treatment volume design should be adjusted to account for the additional shock loading from the volatile solids contained in the open lot runoff.

RESPONSE 6

Section X.A(1-4) of the draft permit outlines the minimum volume allocation requirements for RCS No.1 & 2. The draft permit also requires that RCS No.1 & 2 be enlarged to meet the 25-year, 10-day rainfall event. Upon completion of RCS modifications, 30 TAC § 321.42(g)(4) requires that a stage/storage table for each RCS be described in the RCS management plan and shall become a component of the PPP. As § X.A(1-4) of the draft permit is in compliance with the rules, the ED declines to require this change.

To qualify for their air standard permit-by-rule to minimize odor issues, 30 TAC § 321.43(j)(3)(B)(i) requires an anaerobic treatment lagoon that shall be designed in accordance

with American National Standards Institute/American Society of Agriculture Engineers EP403.3 July 1999 (or subsequent updates); Natural Resources Conservation Services (NRCS), Field Office Technical Guidance, Practice Standard 359, Waste Treatment Lagoon, or the equivalent for the control of odors. The system proposed in the application is a single stage system, which is allowed by ASABE EP403.3. It is only when a multi-stage system is used that the restrictions pertaining to runoff apply.

COMMENT 7

The City comments that the Applicant should be required to report all soil samples taken on August 29, 2007 including the soil sample taken from LMU No.2.

RESPONSE 7

Soil analysis for LMU No.2 was submitted October 3, 2007, which is more recent that August 29, 2007 and considered to be acceptable.

COMMENT 8

Because the Applicant collected a soil sample from LMU No.2B on August 29, 2007 but did not include it on the application, the City comments that the Applicant should be required to provide a map showing the boundaries of all LMUs sampled on August 29, 2007.

RESPONSE 8

The Soil Analysis Reports submitted with the application correspond to the LMU configuration proposed in the application. The application does not propose a LMU No.2B, therefore the Applicant did not show a LMU No.2B in their LMU Map, nor in the NMP. The Applicant is not required to submit analyses for a field that is not part of the permit application.

COMMENT 9

The City comments that the Applicant has not supplied any supporting sources in its application for its estimate of the daily volume of process wastewater. The City requests that the Applicant be required to produce the site-specific data that supports its 20 gallon per head estimate.

RESPONSE 9

The ED considers 20 gallons per head per day an acceptable estimate for processed water. The lower range provided in NRCS software is 15 gallons per head per day.

COMMENT 10

The City comments that the Applicant has not indicated what other water source it intends to use for removing manure from its Freestall barns and that the TCEQ should require the Applicant to quantify the total amount of fresh water that it will use for manure removal. The City also comments that the TCEQ should revise the draft permit to include a provision that limits the Applicant to that volume.

RESPONSE 10

Section VII.A.6(a) requires that flush/scrape systems must be flushed/scraped in accordance with the design criteria. The required RCS volumes are based on 20 gallons per head per day. An increase in waste production would require the RCSs to be enlarged and would also require a permit amendment. An increase, such as that described in the comment, would impact the Applicant's ability to comply with the planned end of the month storage volumes established in the RCS Management Plan. In circumstances where the water level exceeds the planned end of the month volumes, the Applicant must document in the PPP the reasons why it was exceeded. These records are available to field investigators. Excessive exceedences may be an indication that the facility is not being operated in accordance with the design criteria.

The operator may reduce the wastewater volume without a permit amendment by updating equipment or changing waste management protocols. Reducing the waste production would result in the existing ponds being larger than required. The ED encourages the use of newer technologies or management practices that reduce the volume of potential pollutants.

The engineering calculations account for recycled process water to be used to flush freestall. This was added as Special Provision X.R in response to the comment.

COMMENT 11

The City comments that the Applicant has not provided the location of the recycle lines on the site map submitted with the application, additionally, the City comments that the waste flow chart shown in the application does not indicate that either the freestall barns or the milking parlor will have access to recycled effluent.

RESPONSE 11

A waste flow chart, Figure 2.1, was submitted with the permit application which demonstrates the waste streams from the source to the waste storage areas. This is not a required document and the recycle lines are not required to be shown. The CAFO rules do not specify the requirements of a site map. However, the draft permit identifies the minimum requirements for a site map. The ED believes these requirements are adequate.

COMMENT 12

The City comments that no evaluation has been made of the existing RCSs to determine whether they are designed to meet the capacity requirements under a 25-year 24-hour design rainfall event.

RESPONSE 12

Existing RCS volume requirements are contained in the existing authorization and are enforced under that authorization by TCEQ Field Investigators. If this permit is issued, the new volume allocation requirements will take effect and construction will be required to meet those allocations within 180 days; and must be completed before exceeding 1500 head. The required minimum volume allocations are shown in § X.A.1. of the draft permit. Section VII.A.3.(a) of the draft permit requires that after completion, liner and capacity certifications be maintained in the PPP for all modified RCSs. Section X.A.4 states that all certifications required by § VII.A.3(a) of this permit shall be submitted to the TCEQ Regional Office and CAFO Permitting, Water Quality Division (MC-150) within 30 days of completing modifications.

COMMENT 13

The City comments that because of sludge accumulation in the existing RCSs the TCEQ, before issuing the draft permit, should require the Applicant to submit a new capacity certification, including calculation of sludge accumulation, so that the minimum treatment volume is maintained.

RESPONSE 13

The application review process for this draft permit does not require review of current conditions to determine compliance with the existing permit. The Applicant proposed to modify the ponds and within 30 days of construction completion the permittee will submit to the TCEQ Regional Office a new liner and capacity certifications in accordance with § X.A.4 of the draft permit.

COMMENT 14

The City comments that to ensure accurate evaporation volumes in the water balance, § VII.A.5(a)(2)(iv) of the draft permit should be revised to read "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 14

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 15

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 15

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 system is completed and volumes 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 investigators 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 RCS management plan is available to TCEQ investigators during the inspection process.

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. Until RCS modification is complete, the dairy may not exceed the 850 head currently authorized.

COMMENT 16

The City comments that the site map included in the application is inadequate as it does not show the location of manure stockpiles and it does not show the locations of all of the pen areas. The City comments that the site map should be revised to show the location of the stockpiles, pens, open lot areas, and the adjacent areas, including specification of ground cover, between the pens and control structures so that the areas used in drainage calculations can be confirmed.

RESPONSE 16

If manure is stored outside 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 manure storage areas.

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 a RCS and accounted for in the design calculations of the RCS.

The Applicant is required to comply with the draft permit after the permit is issued. The locations of all pens authorized by the draft permit are shown on Attachment A of the draft permit. The use of pens that are not shown on Attachment A would be a violation of the permit.

Section VI. B states 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. Therefore the groundcover used in the design calculations is available to investigators and is an enforceable component of the permit.

COMMENT 17

The City comments that draft permit provision X.G.3 requires a slurry storage area to prevent overflow into settling ponds and/or RCSs. Because of the consistency of slurry, this material would require a storage basin such as an RCS. Construction of a RCS would require a permit

amendment so draft permit provision X.G.3 should be revised to clarify that slurry storage will require a permit amendment.

RESPONSE 17

TCEQ CAFO rules do not require a permit amendment to construct slurry storage areas. Section X.G of the draft permit requires that any storage of slurry be in the drainage area of the RCSs. To clarify that slurry storage does not require a storage basin, § X.G has been revised as follows:

G. Slurry removed from freestall barns must be stored within the drainage area of an RCS, and the storage area must be large enough to prevent overflow into settling basins and/or RCSs. Storage of slurry in settling basins is prohibited. Any overflow of these storage areas shall be recorded in the PPP and notification shall be provided to the regional office within thirty (30) days. Based on review of the information this permit may be formally amended to require additional controls or other requirements.

COMMENT 18

The City comments that the Applicant has not provided appropriately certified design specifications or completed construction specifications in order to demonstrate that its settling basins are adequately designed and will be properly constructed. The City requests the TCEQ require the Applicant to submit these certifications before permit issuance.

RESPONSE 18

The permit requires that documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS must be included in the PPP.

The ED agrees that settling basins are defined as RCSs. However, settling basins are an optional treatment practice to reduce sludge accumulation in the RCS designed to store wastewater. Settling basins are not used to store wastewater, so their capacity may not be used to meet the minimum required volume on page 1 of the draft permit. Therefore, the capacity of the settling basin is not relevant for purposes of sizing the RCS so that it meets the 25-year, 10-day design volume.

COMMENT 19

The City comments that there is no technical justification in the application to support the Applicant's proposition that it plans to construct settling basins of the type or design that the

Midwest Plan Service Structures and Environmental Handbook indicates is necessary to achieve a 50% solids removal efficiency. The City comments that the TCEQ should require the Applicant to provide this data so that the Applicant's removal rates can be justified.

RESPONSE 19

The Midwest Plan Service Structures and Environmental Handbook, which the Applicant used to derive the settling basin removal rate, states that "settling basins remove 50%-85% of the solids." The application is based on 50% removal rate, which falls within the acceptable range in the reference material. The draft permit requires that the PPP include documentation describing the sources of information, assumptions, and calculations used in determining the appropriate volume capacity and structural features of each RCS.

COMMENT 20

The City comments that in order to enforce draft permit §X.N., that solids in the settling basin be removed on a "regular and consistent basis so as to assure attainment of 50% designed removal efficiency" the removal requirements should be more specific in the draft permit. The City suggests that the draft permit be revised to include a provision consistent with the Midwest Plan Service Structures and Environment Handbook recommendations, "solids from the settling basin shall be removed after every rainfall event in excess of one inch and at a minimum of four times per year."

RESPONSE 20

The ED declines to make this change. Settling basins are used to reduce the sludge accumulation in RCSs. RCS No.1 & 2 are designed for three years of sludge accumulation and RCS No.3 is designed for five years of sludge accumulation. If the settling basins do not achieve the removal efficiencies proposed in the design calculations, sludge will accumulate in the RCSs at a faster rate than expected. The draft permit addresses this issue by requiring sludge accumulation to be monitored as needed, but at least annually beginning in year one of the permit for RCS No. 1 & 2 and in year three of the permit for RCS No.3. Taking volume measurements starting in year one and three will help reevaluate the accumulation rates prior to reaching the three and five-year design volume. The draft permit also requires the Applicant to maintain the sludge volume at or below the designed sludge volume.

COMMENT 21

The City comments that settling basin solids should be defined as "sludge" and not "manure" as in § X.H.1 of the draft permit.

RESPONSE 21

The ED declines to make this change. Settling basin solids are not "sludge" since there is no sludge volume allocation. Therefore, settling basin solids are defined as "manure." If settling basin solids are land applied, an annual sample must be collected and analyzed in accordance with § VII.A.9(a) of the draft permit, in addition to other manure and wastewater.

COMMENT 22

The City comments that the draft permit should be amended to require annual determination of sludge accumulation instead of three years following permit issuance in RCS No.3.

RESPONSE 22

30 TAC § 321.39(c) and § VII.A.4(a)(7) of the draft permit prohibits 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 three years for RCS No.1 & 2 and five years of accumulation for RCS No.3. The RCS management plan will establish accumulation rates in the RCSs, which will identify the current sludge volume in each RCS. Taking volume measurements starting in year one for RCS No.1 & 2 and year three for RCS No.3 will help reevaluate the accumulation rates prior to reaching the three-year and five-year design volume.

By starting measurements in year one for RCS No. 1 & 2 and year three for RCS No.3, the Applicant will have time to complete modification and expansion of RCSs, 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 any RCS.

COMMENT 23

The City comments that the draft permit fails to adequately define capacity certification requirements. The City states that § VII.A.3(a)(2) should make it clear that all capacity certifications require certification of both total as-built capacity and the remaining capacity as a result of sludge accumulation by inserting the following sentence: "Capacity certifications shall include both the total as-built RCS capacity and the remaining RCS capacity due to sludge accumulation."

RESPONSE 23

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 one of the permit for RCS No.1 & 2 and in year three of the permit for RCS No.3 and then annually thereafter.

COMMENT 24

The City comments that the Applicant's proposed settling basins have not been identified as earthen or concrete. If the settling basins will be concrete they need to be certified by a professional engineer, as structurally sound, free of cracks & leaks and "having no hydrologic connection to waters of the state."

RESPONSE 24

Section VII.A.10(a)(3)(i) requires the Applicant to "all control facilities, including RCSs, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to RCSs." Section VII.A.10(b) requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years. These inspections will identify conditions that could result in a discharge of pollutants to water in the state. The draft permit also requires the Applicant to correct all deficiencies within 30 days or document the factors that prevent immediate correction.

COMMENT 25

The City comments that RCS No. 3 was not included in the December 10, 2002 registration and before the draft permit is issued, the Applicant should be required to demonstrate the RCS No.3 was built in accordance with the current liner and embankment standards specified in § VII.7.A(3)(f) and § VII.7.A(3)(g) of the draft permit.

RESPONSE 25

The draft permit requires the Applicant to modify the pond to meet the requirements of the permit including liner and embankment requirements. Special Provision X.A.2 in the draft permit requires that all RCS modifications be completed within 180 days after the issuance date of the permit and prior to exceeding 850 head. Failure to comply with the permit requirements is grounds for TCEQ enforcement action. Therefore, the ED declines to make the change.

Following construction or modification, § VII.A.3(a) of the draft permit also requires documentation of liner and capacity certifications for the modified RCS prior to use and requires that documentation be maintained in the on-site PPP. All certifications required by §

VII.A.3(a) of the draft permit must be submitted to the TCEQ Regional Office and CAFO Permitting, Water Quality Division (MC 150) within 30 days of completing modification.

COMMENT 26

The City comments that the current liner certifications are inadequate; however, the TCEQ is allowing the Applicant to rely on inadequately certified RCSs after permit issuance until the RCSs are finally modified.

RESPONSE 26

TCEQ regional investigators can review the current liner certifications during site inspections and determine compliance with the TCEQ rules and the existing permit. The draft permit requires RCS No.1, 2, & 3 to be enlarged to contain the required capacities listed on page 1 of the draft permit. Section VII.A.3 (a) of the draft permit also requires documentation of liner and capacity certifications to be completed for the modified RCSs prior to use and these certifications shall be maintained in the on-site PPP. Also, note that §X.A.2. of the draft permit gives the Applicant 180 days after the permit is issued to complete all RCS modifications required by the draft permit.

COMMENT 27

The City comments that the TCEQ has previously required Applicants to submit a minimum of one floor sample per acre of surface area and a minimum of one sidewall sample per each two acres of surface area, the City believes this to be the more appropriate sampling protocol and that the TCEQ should continue to require this sampling protocol.

RESPONSE 27

The requirement in the draft permit exceeds the requirement of the existing permit and of the rules. Section VII.A.3.(g)(30(ii) of the draft permit requires that:

> For each RCS, a minimum of one undisturbed sample shall be collected per plan surface acre 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, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.

This requirement is considered to provide certifications that will adequately document the permeability of the RCS liners. Therefore, the ED declines to make the change.

COMMENT 28

The City comments that the draft permit contains some procedures and requirements for liner and embankment testing, but it does not adequately address the testing of embankment construction in § VII.A.3(f)(4). The City comments that TCEQ should: 1) require the field density tests to be based on predetermined moisture-density compaction curves, 2) define the frequency of testing (e.g., number of tests per specific area per lift), 3) require compaction testing on each lift during the construction of the liner (not merely on the last lift after completion of the liner), 4) require documentation and reporting of compaction test locations and results, 5) require continuous on-site inspection during construction. Additionally, the City comments that TCEQ should review compaction testing results to make an independent verification of the certification.

RESPONSE 28

Section VII.A.3(b) of the draft permit requires that the RCS be designed and constructed in accordance with the technical standards developed by NRCS, ASABE, ASCE, or ASTM. Additionally, the draft permit identifies specific RCS design, construction, and testing criteria in § VII.3(f). The construction requirements for embankment lifts are in § 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 § 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 § VII.A.3(g)(2) 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. These testing requirements should be adequate and protective of

water quality.

COMMENT 29

The City comments that draft permit § VII.A.(3)(f)(4) refers to ASTM standard D6938-07, which is no longer in effect and was superseded by standard D3938-08a. The City recommends that the referenced standard be changed simply to "D6938," and the sentence, "The ASTM standards shall be those that are in effect at the time of construction," be added to draft permit § VII.A.(3)(f)(4).

RESPONSE 29

The ED agrees with the comment. Section VII.A.3(f)(4) was changed to D6938. The requested language was not added to the section because it is already stated in § VII.A.3(b) of the draft permit as follows:

(b) Design and Construction Standards. The permittee shall ensure that each RCS is designed and constructed in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, or American Society of Testing Materials 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.

COMMENT 30

The City comments that the draft permit lacks the required standards for quality of soils used in construction of the RCS. The City believes that the draft permit should be revised to describe minimum values for the following quality of soil standards: plasticity index, liquid limit, percent passing 200 mesh sieve, and percent passing one-inch screen.

RESPONSE 30

Section VIIA.3(b) specifies design and construction standards for RCSs. Section VIIA.3(f) and (g) specifies additional design and construction standards relative to liners. Analysis of plasticity index, liquid limits, and percent passing a 200 mesh sieve will assist the construction contractor and design engineer in determining if the soil proposed for us as a liner can achieve the compaction, permeability, and specific discharge requirements of the permit. The liner design and construction requirements in the permit will ensure adequate protection of groundwater and meet the requirements of 30 TAC § 321.38(g).

COMMENT 31

The City comments that draft permit § VII.A.3(g)(4) was either excluded by mistake, in which case it should be included so interested parties have an opportunity to review it, or the provision was incorrectly numbered.

RESPONSE 31

The ED agrees with the comment that the section was incorrectly numbered. Draft permit § VII.A.3(g)(5) has been revised to § VII.A.3(g)(4).

COMMENT 32

The City comments that a complete list of specific circumstances that would qualify for an extension to the deadline for completing RCS modifications should be included in the draft permit in § X.A.2.

RESPONSE 32

The conditions that may delay construction of an 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 on a case-by-case basis to determine whether to grant an extension.

COMMENT 33

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

RESPONSE 33

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 diversion berm.

The draft 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 draft 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 draft permit requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years.

COMMENT 34

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

RESPONSE 34

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 35

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 be kept in the PPP.

RESPONSE 35

The rules cited by the City do not require these records be submitted to the 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 provided to the TCEQ 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 TCEQ.

COMMENT 36

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 36

The draft permit requires 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.

The applicant is currently required to have a site evaluation conducted every five years. However, neither the rules nor the draft permit require the five year evaluation to be submitted to the TCEQ. Instead, the permit requires these records to be maintained onsite and provided to TCEQ personnel upon request.

The draft 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 draft permit requires the Applicant to conduct weekly inspections on all control facilities, including the RCSs, 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 draft permit requires the Applicant to have a licensed Texas professional engineer complete a site evaluation of the structural controls every five years.

COMMENT 37

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 37

The draft 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 § VII.A.9.(b) of the draft permit.

COMMENT 38

The City comments that the draft permit fails to account for proper management of phosphorus production. The City comments that 1,600 cows will produce 358 lb/day P_2O_5 which is equivalent to 132,292 lb/yr P_2O_5 and only 7,411 /yr of P_2O_5 will be applied to LMU's or third-party fields as indicated in the NMP. The City states that 124,881 lb/yr P_2O_5 (94.4 percent) will be potentially managed on third-party fields within the North Bosque River watershed without any nutrient management plan. The City comments that failure to plan for proper management of this phosphorus will lead to excess phosphorus distribution within the watershed.

RESPONSE 38

The permit application identifies how much phosphorus is generated and the methods used to utilize or dispose of it. It is projected that 1,600 cows will generate 358 lbs. of P_2O_5 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.

The NRCS 590 Standard does not require that all LMUs be limited to the phosphorus removal rate of application. If the soil test levels for phosphorus are below 200 ppm, the crop nitrogen recommendation or some multiple of the crop phosphorus recommendation is the allowable rate depending on the Phosphorus risk index. Only when the soil test levels exceed 200 ppm does the crop phosphorus removal rate of application become a requirement.

COMMENT 39

The City notes that the draft permit allows up to 100% of the manure to be land applied within the watershed. The City comments that the draft permit should 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 39

The North Bosque TMDL has a goal of a 50% reduction in in-stream loading. The TMDL and TMDL I-Plan address growth of CAFOs through best management practices (BMPs) designed to decrease loading. Neither the TCEQ rules nor the TMDL I-Plan requires a 50% haul-out of collectible manure.

COMMENT 40

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 the issuance of the permit.

RESPONSE 40

In response to comment, the date of the most recent NMP has been added to § V of the Fact Sheet.

COMMENT 41

The City comments that Texas NRCS Code 590 requires sampling to be conducted in accordance with Texas A&M University ("TAMU") guidance. The course and guidance limit the size of LMUs to 40 acres or less. Nine of the Applicant's LMUs are greater than 40 acres. The City recommends subdividing the nine oversized LMUs to meet the NRCS Code 590 standard and requiring submission of a reviseding the LMU map and NMP.

RESPONSE 41

The CAFO rules in 30 TAC Chapter 321 does not require that the soil sampling area define the size of an LMU. Also, the CAFO rules do not specify or limit the size of a LMU. Management considerations are important when determining LMU size.

COMMENT 42

The City comments that the Applicant has failed to establish proper boundaries for LMU No. 2 and the LMU No.2 pivot is spraying water onto adjacent property. The City comments that the Applicant should be required to shorten the length of the LMU No.2 pivot.

RESPONSE 42

The LMU acreage shown on page 1 of the draft permit is the only authorized acreage owned, operated, controlled, rented, or leased by the Applicant for land application activities. The acreage listed on page 1 for LMU No.2 is graphically represented in Attachment B of the draft permit. Attachment B shows a setback from the property line where the irrigation pivot is not allowed to irrigate. Utilizing unauthorized acreage for land application on the facility or on the neighbor's property is a violation of the permit and Texas Water Code § 26.121.

COMMENT 43

The City comments that the Applicant has not submitted data to justify that the predicted crop yields are reasonable and that the draft permit should be amended to require reports of the actual annual yields of harvested crops be submitted to demonstrate that that the Applicant is using reasonable crop yields.

RESPONSE 43

The Applicant is not required to demonstrate that the crop yields are reasonable, but is required to use realistic yield goals for the location of the facility. The average annual rainfall for Erath County is approximately 31 inches. This rainfall will supply enough water to achieve the yield goals presented in the application. Water availability does not present a limitation in achieving the proposed yield goals. Furthermore, nutrients will not limit the yield goal on any field due to the application of manure and wastewater. The ED determined that the yield goals used in the NMP are achievable.

If the proposed yield goals are not achieved, due to lower than average rainfall, crop damage, or any other crop failure, the soil test results will indicate a higher than expected nutrient value. These values will then be used to determine the maximum application rate for the following year.

Record keeping requirements at 30 TAC § 321.46(d)(8)(f) state the actual yield of each harvested crop must be recorded on a monthly basis. The information is available to the ED during field investigations. Crop removal rates are based on yields when the NMP software is used.

COMMENT 44

The City comments that the NMP should be revised to allow application of only that quantity of nutrients that will benefit optimum crop production. The City comments that the Applicant's NMP is flawed, as it does not account for the nutrients available to plants in the root zone in satisfying the crop requirement.

RESPONSE 44

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 45

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.

RESPONSE 45

The draft permit requirements are consistent with TCEQ rules relative to phosphorus reduction in waste application fields. The use of phosphorus based assessments requires additional action on fields exceeding 200 ppm. All waste application is limited under the draft permit provisions to avoid significantly increasing phosphorus runoff into the North Bosque River. An LMU that reaches 200 ppm of phosphorus triggers the nutrient utilization plan (NUP) requirement. *See* 30 TAC § 321.40(k)(3) and § 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 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)	Maximum Annual P_2O_5 (lbs/ac)	Pounds Applied P_2O_5 (lbs/ac)	% of Maximum Allowable
1	147	103	26	25
2	43	51	26	50
2a	55	103	26	25
3	107	51	26	50
4a	134	103	26	25
4be	57	103	26	71
4bw	56	103	73	70
4c	208	85	720	0
5	86	51	39	75

Page 16 of the TMDL I-Plan for the North Bosque does read as indicated by the City. 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 46

The City comments that the Applicant plans to apply supplemental inorganic phosphorus to LMU No. 2a, 4bW, and 4bE. The City comments that the Applicant should be required to follow the NRCS Code 590 requirements for commercial fertilizer that preclude the use of commercial phosphorus fertilizers on LMUs like these that exceed the crop requirement for phosphorus.

RESPONSE 46

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 in accordance with an NMP, adherence to buffers between land application areas and water in the state; and the prohibition of discharges from land application areas. Whether the nutrients required by the crop are supplied from organic or inorganic sources is irrelevant so long as the Applicant adheres to the required BMPs.

The right half of Table 7 of the NMP is entitled "Supplemental Nutrients Needed at Planned

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

Rates". That the nutrients are "needed" does not equate to "will be applied." The values in this table are calculated by the worksheet and do not represent entries by the NMP preparer. The scores for inorganic P_2O_5 application rate in the PI Index by the field table for the NMP dated 8/7/08 suggest that supplemental P_2O_5 may be added. The Executive Summary for the NMP dated 8/7/08, states that supplemental nitrogen may be added, but does not mention supplemental P_2O_5.

COMMENT 47

The City comments that the draft permit should be revised to prohibit waste application onto uncultivated fields or at least on uncultivated fields within 500 feet of a stream since no buffers are required for third-party fields. Additionally, the City requests that a specific draft permit provision be added to require adherence to NRCS Code 590 on third party fields if it is more restrictive. The City further comments that according to the draft permit no NMP is required for third-party fields and in order to determine the appropriate application rates the draft permit should be revised to require an NMP for third-party fields, even if the criteria for the NMP are different that in those in NRCS Code 590.

RESPONSE 47

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 account the potential for phosphorus build-up to occur. Land application on third party fields may not exceed a maximum soil test phosphorus level of 200 ppm. When a third party field 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) of the draft permit 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 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 draft 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 48

The City comments that the draft permit should prohibit application of wastewater on third-party fields, unless the owner of the third-party field transports the wastewater from the CAFO by truck.

RESPONSE 48

TCEQ rules do not require ED review or approval of the mode of conveyance an Applicant will use to transport wastewater to a third-party field. The draft permit allows the Applicant to provide wastewater to operators of third party fields, but does not specify the delivery method. This gives the Applicant flexibility on the mode of transportation to be used at the time of transfer to third party field. Therefore, the ED declines to make this change as requested by the City.

COMMENT 49

The City comments that the draft permit should require the Applicant to report information to TCEQ on third party fields regarding soil testing, areas of application, and application rates. The City also comments that the information should also be included in the annual report along with copies of contracts with applicable third party field operators, statements of compliance with permit requirements for the previous year, and a summary of discharges from third party fields or a statement that there has not been any discharge from any third party field. For example, the City suggests adding the following phrase at the end of § VII.8.(e)(5)(iv):

> ...a copy of any initial or annual soil analyses, land application locations, dates and times, and nutrient concentration of applied materials, rates, acreage of application rates, and crops and crop yields for the preceding quarter.

RESPONSE 49

30 TAC § 321.42(j) and § VII.A.8(e)(5)(iv) of the draft permit contain the requirements for

land application on third party fields in the North Bosque River watershed. It requires that records be maintained that contain the name, locations, and amounts of manure, litter, or wastewater transferred to operators of third party fields and requires that information be submitted to the appropriate TCEQ region office on a quarterly basis. *See* 30 TAC § 321.42(j)(4). Soil sample testing on third party fields must be included in the annual report due February 15th and submitted to TCEQ. *See* § VIII.B.7(i).

30 TAC § 321.42(j)(1) requires a written contract between the CAFO dairy operator and the operator of a third party field; and any such contracts should be maintained in their PPP. 30 TAC § 321.46(d) specifies the requirements for recordkeeping at the CAFO. Records must be kept on site for a minimum of five years from the date the record was created and must submit them to TCEQ within five days of a request by the ED.

COMMENT 50

The City comments that the draft permit should be revised as to not allow sludge to be applied to third party fields, the City comments that 30 TAC § 321.42(j) only allows manure, litter, and wastewater to be applied to third party fields.

RESPONSE 50

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

Attachment E

Compliance History

Compliance History Report

Customer/Respondent/Owner-Operator:	CN601342207	OSINGA, JOSEPH	Classification: AVERAGE	Rating: 0.67
Regulated Entity:	RN102805082	OSVE DAIRY	Classification: AVERAGE	Site Rating: 0.67

ID Number(s):

WASTEWATER AGRICULTURE	PERMIT	WQ0003682000
WASTEWATER AGRICULTURE	PERMIT	TX0126608

Location: LOCATED ON THE E SIDE OF US HWY 281, APPROX 10 MI S OF STEPHENVILLE. 2.3 MI S OF THE INTXN OF FM RD 913 & US HWY 281 IN ERATH CO TX

TCEQ Region: REGION 04 - DFW METROPLEX

Date Compliance History Prepared: October 15, 2009

Agency Decision Requiring Compliance History: Enforcement

Compliance Period: October 15, 2004 to October 15, 2009

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

Name: jbonham 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? Yes
3. If Yes, who is the current owner/operator? N/A
4. If Yes, who was/were the prior owner(s)/operator(s) ?

OWNOPR	N/A	SCHOUTEN, MICHAEL JAMES
OWN		OSVE Dairy, L.L.C.

5. When did the change(s) in owner or operator occur?

08/22/2007	OWNOPR	SCHOUTEN, MICHAEL JAMES
	OWN	OSVE Dairy, L.L.C.

6. Rating Date: 9/1/2009 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.

N/A

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.)

N/A

1	03/09/2005	(373037)
2	04/24/2006	(453469)
3	02/09/2007	(534793)
4	01/28/2008	(611886)
5	06/05/2009	(747921)

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

N/A

Date: 04/14/2006 (453469) CN601342207

Self Report? NO Classification: Moderate

Citation: 30 TAC Chapter 321, SubChapter B 321.40(7)

Description: FAILURE TO MAINTAIN THE REQUIRED 100 FOOT BUFFER DISTANCE BETWEEN A WATERWAY AND WASTE APPLICATION.

Self Report? NO Classification: Minor

Citation: 30 TAC Chapter 321, SubChapter B 321.49(d)(2)

Description: Failure to submit copies of the soil analysis results within 60 days to the ED and appropriate regional office.

F. Environmental audits.

N/A

G. Type of environmental management systems (EMSs).

N/A

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