

# State Office of Administrative Hearings



Cathleen Parsley  
Chief Administrative Law Judge

November 24, 2008

Les Trobman, General Counsel  
Texas Commission on Environmental Quality  
PO Box 13087  
Austin Texas 78711-3087

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY  
2008 NOV 24 PM 12:40  
CHIEF CLERKS OFFICE

Re: SOAH Docket No. 582-08-0007; TCEQ Docket No. 2007-0831-AGR  
In Re: In the Matter of the Application of Hidden View Dairy for Amendment to  
Texas Pollutant Discharge Elimination System (TPDES) Permit No.  
WQ0003197000

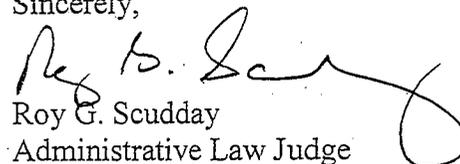
Dear Mr. Trobman:

The above-referenced matter will be considered by the Texas Commission on Environmental Quality on a date and time to be determined by the Chief Clerk's Office in Room 201S of Building E, 12118 N. Interstate 35, Austin, Texas.

Enclosed are copies of the Proposal for Decision and Order that have been recommended to the Commission for approval. Any party may file exceptions or briefs by filing the original documents with the Chief Clerk of the Texas Commission on Environmental Quality no later than December 15, 2008. Any replies to exceptions or briefs must be filed in the same manner no later than December 29, 2008.

This matter has been designated **TCEQ Docket No. 2007-0831-AGR; SOAH Docket No. 582-08-0007**. All documents to be filed must clearly reference these assigned docket numbers. Copies of all exceptions, briefs and replies must be served promptly on the State Office of Administrative Hearings and all parties. Certification of service to the above parties and an **original and eleven copies** shall be furnished to the Chief Clerk of the Commission. Failure to provide copies may be grounds for withholding consideration of the pleadings.

Sincerely,

  
Roy G. Scudday  
Administrative Law Judge

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cc: Mailing List

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SERVICE LIST

AGENCY: Environmental Quality, Texas Commission on (TCEQ)  
STYLE/CASE: HIDDEN VIEW DAIRY, A TEXAS GENERAL PARTNERSHIP  
SOAH DOCKET NUMBER: 582-08-0007  
REFERRING AGENCY CASE: 2007-0831-AGR

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HIDDEN VIEW DAIRY

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xc: Docket Clerk, State Office of Administrative Hearings

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CHIEF CLERKS OFFICE

**SOAH DOCKET NO. 582-08-0007  
TCEQ DOCKET NO. 2007-0831-AGR**

TEXAS  
COMMISSION  
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2008 NOV 24 PM 12: 41

<p><b>IN THE MATTER OF THE APPLICATION OF HIDDEN VIEW DAIRY FOR AMENDMENT TO TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES) PERMIT NO. WQ0003197000</b></p>	<p>§ § § § § §</p>	<p style="text-align: right;"><b>BEFORE THE STATE OFFICE CHIEF CLERKS OFFICE</b></p> <p style="text-align: center;"><b>OF</b></p> <p style="text-align: right;"><b>ADMINISTRATIVE HEARINGS</b></p>
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**SOAH DOCKET NO. 582-08-0007  
TCEQ DOCKET NO. 2007-0831-AGR**

<b>IN THE MATTER OF THE</b>	§	<b>BEFORE THE STATE OFFICE</b>
<b>APPLICATION OF HIDDEN VIEW</b>	§	
<b>DAIRY FOR AMENDMENT TO</b>	§	
<b>TEXAS POLLUTANT DISCHARGE</b>	§	<b>OF</b>
<b>ELIMINATION SYSTEM (TPDES)</b>	§	
<b>PERMIT NO. WQ0003197000</b>	§	<b>ADMINISTRATIVE HEARINGS</b>

**PROPOSAL FOR DECISION**

**I. INTRODUCTION**

Hidden View Dairy (the Dairy) has applied to the Texas Commission on Environmental Quality (TCEQ or Commission) for an amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0003197000 (Permit) to authorize an expansion of a Concentrated Animal Feeding Operation (CAFO) from 2,000 to 3,000 head of cattle. The dairy is located on the northwest side of County Road 522, approximately one-quarter mile northeast of the intersection of County Road 522 and State Hwy. 6 in Erath County, Texas. The proposed permit authorizes no discharge into Green Creek, a tributary of the North Bosque River in Segment 1226 of the Brazos River Basin.

The Administrative Law Judge (ALJ) recommends that the Commission grant the permit.

**II. PROCEDURAL HISTORY**

The Dairy's application was filed on January 27, 2004. As a result of the issuance by the Commission of new CAFO rules in July 2004, the Dairy submitted a revised application on April 17, 2006. The ED recommended issuance of the permit and published the requisite notices. On August 22, 2007, the Commission referred the case to the State Office of Administrative Hearings (SOAH) for a contested case hearing on nine environmental-impact issues and named two persons as affected persons: Carol Robbins and the Lone Star Chapter of the Sierra Club. At the preliminary hearing conducted on November 8, 2007, the following protestants were named as parties to the contested

case: Pritchey Smith and the Lone Star Chapter of the Sierra Club (Protestants). The ED issued a revised Draft Permit on May 23, 2008.

The hearing on the merits was conducted in Austin, Texas, on August 19 - 20, 2008, by ALJ Roy G. Scudday. The record closed on October 17, 2008, upon filing of a transcript and the parties' briefs.

Dairy was represented by Leonard H. Dougal and James D. Bradbury, attorneys. Protestants were represented by Eric Allmon, attorney. The Office of Public Interest Counsel (OPIC) was represented by Garrett Arthur, attorney. The Executive Director of Texas Commission on Environmental Quality (ED) was represented by Robert D. Brush, attorney.

### III. APPLICABLE LAW

#### A. Statutes and Rules

The Dairy's application is governed by TEX. WATER CODE ANN. (Code) ch. 26, and rules adopted thereunder, specifically those found at 30 TEX. ADMIN. CODE (TAC) ch. 321 subch. B.

A large CAFO is any animal feeding operation (AFO) that maintains 700 or more mature dairy cattle.<sup>1</sup> The TCEQ may authorize an increase in the animals confined under an existing CAFO only by a new or amended individual permit that provides for management and disposal of waste in accordance with 30 TAC ch. 321 subch. B.<sup>2</sup> A discharge from a CAFO located in a major sole-

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<sup>1</sup> 30 TAC § 321.32(13).

<sup>2</sup> Code § 26.503.

source impairment zone may only be authorized under an individual permit.<sup>3</sup> Individual CAFO permits shall be effective for a term of five years.<sup>4</sup>

A CAFO is required to do the following:

- design, construct, operate, and maintain the facility to contain all manure, litter, and process wastewater including runoff and direct precipitation from the design rainfall event;
- develop and implement a nutrient management plan (NMP) certified by the Natural Resources Conservation Service (NRCS) to ensure appropriate agricultural utilization of nutrients in the manure, litter, or wastewater;
- provide sufficient buffers for land management units (LMUs);
- provide for periodic soil sampling and testing; and
- keep required records.<sup>5</sup>

No discharge of manure, litter, or wastewater may be made from a CAFO production area except, as a result of a chronic or catastrophic rainfall event, from a retention control structure (RCS) that has been properly designed, constructed, operated, and maintained.<sup>6</sup> An RCS must be designed, constructed, and operated to meet or exceed the capacity required to contain the runoff and direct precipitation from the 25-year, 24-hour rainfall event.<sup>7</sup> CAFOs located in a major sole-source impairment zone must be operated to contain the runoff and direct precipitation from a 25-year, 10-day rainfall event, and a discharge may only be made when the volume of the rainfall runoff and direct precipitation exceed the volume for the margin of safety that must be maintained in the RCS.<sup>8</sup>

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<sup>3</sup> 30 TAC § 321.33 (b).

<sup>4</sup> 30 TAC § 321.33 (l).

<sup>5</sup> 30 TAC § 321.36.

<sup>6</sup> 30 TAC § 321.37 (d) and (e).

<sup>7</sup> 30 TAC § 321.38(e)(7)(A).

<sup>8</sup> 30 TAC § 332.42(c)(1).

The CAFO permit shall establish requirements for the temporary storage of manure, litter, or sludge not to exceed 30 days, and requirements for permanent storage for more than 30 days.<sup>9</sup> For CAFOs located in a major sole-source impairment zone, the operator shall provide for management and disposal of waste by beneficially using the waste outside the watershed, disposing of the waste in landfills outside the watershed, delivering the waste to a composting facility, putting the waste to another approved beneficial use, or applying the waste in accordance with the NMP. The waste may be applied to waste application fields that are owned, operated, controlled, rented, or leased by the owner of the CAFO if the fields contain 200 or fewer parts per million (ppm) of extractable phosphorus at a depth of zero to six inches, or, in accordance with an approved detailed nutrient utilization plan (NUP), to a waste application field that contains greater than 200 ppm of extractable phosphorus at a depth of zero to six inches.<sup>10</sup> The CAFO may also provide manure, litter, and wastewater to operators of third party fields that are not owned, controlled, rented, or leased by the owner or operator of the CAFO if there is a written contract with the owner of the field that requires that all transferred manure, litter, and wastewater be beneficially applied to the fields identified in the CAFO's pollution prevention plan (PPP) that do not have a soil level greater than 200 ppm extractable phosphorus.<sup>11</sup>

Animals confined at the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.<sup>12</sup> Vegetative buffer strips of no less than 100 feet will be maintained between the manure, litter, or wastewater application areas and

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<sup>9</sup> 30 TAC § 332.39(e).

<sup>10</sup> 30 TAC § 321.42(i).

<sup>11</sup> 30 TAC § 321.42(j).

<sup>12</sup> 30 TAC § 321.39(g)(1).

the waters of the state.<sup>13</sup> For CAFOs located in a major sole-source impairment zone, the land application of manure, litter, or wastewater is prohibited between midnight and 4 a.m.<sup>14</sup> All CAFOs located in a major sole-source impairment zone must develop and operate under a comprehensive nutrient management plan (CNMP) that is certified by the Texas State Soil and Water Conservation Board.<sup>15</sup>

A CAFO shall be operated in such a manner as to prevent the creation of any discharge of air contaminants 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. The CAFO operator shall take necessary action to identify any nuisance condition that occurs and to abate any nuisance condition as soon as practicable.<sup>16</sup> Sufficient buffer distances must be maintained from the location of permanent odor sources at the CAFO to the nearest edge of any occupied residence or business structure, school, public structure containing a place of worship, or public park.<sup>17</sup> RCSs for process-generated wastewater shall be designed and operated to minimize odors in accordance with accepted engineering practices.<sup>18</sup> CAFOs shall be operated to minimize dust omissions.<sup>19</sup> The premises shall be maintained to prevent the occurrence of nuisance conditions from odors and dust; spillage of raw products or waste products that cause a nuisance condition shall be picked up and properly disposed of daily; and proper pen drainage shall be maintained at all

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<sup>13</sup> 30 TAC § 321.40(h).

<sup>14</sup> 30 TAC § 321.42(r).

<sup>15</sup> 30 TAC § 321.42(s).

<sup>16</sup> 30 TAC § 321.32(32) and § 321.43(j)(1).

<sup>17</sup> 30 TAC § 321.43(j)(2).

<sup>18</sup> 30 TAC § 321.43(j)(3).

<sup>19</sup> 30 TAC § 321.43(j)(4).

times, with earthen pens maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding.<sup>20</sup>

CAFO operators are required to notify the TCEQ regional office within 24 hours and to submit a written notice to the Office of Compliance and Enforcement of the TCEQ within 14 working days of any discharge of water to the state, and are required to monitor the discharge by sample collection and analysis.<sup>21</sup> The CAFO shall develop a PPP in accordance with good engineering practices that shall include measures necessary to limit the discharge of pollutants to or adjacent to water in the state and that will describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of the rules of the TCEQ regarding CAFOs.<sup>22</sup>

#### **B. Burden of Proof**

The applicant for the permit, in this case the Dairy, has the burden to prove that the proposed permit will comply with the applicable statutes and rules regarding CAFOs in the State pursuant to 30 TAC § 80.17(a).

### **IV. PROPOSED PERMIT TERMS**

#### **A. Existing Permit**

On June 27, 1997, the TCEQ issued Permit No. WQ0003197000 to authorize the Dairy to operate a CAFO with 2,000 head of cattle. No discharge of pollutants was authorized by the permit.

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<sup>20</sup> 30 TAC § 321.43(j)(5).

<sup>21</sup> 30 TAC § 321.44.

<sup>22</sup> 30 TAC § 321.46(a).

The facility consists of open lots, freestall barns, a milking parlor, one treatment pond and four RCSs, which RCSs have a total required capacity without freeboard of 53.4 acre-feet, and an actual capacity of 114.30 acre-feet. The primary source of process-generated wastewater is wash water from the milking parlor operations. The process-generated wastewater is directed to a separator, into settling basins, into the treatment pond, and then to the RCSs for storage. The facility has nine LMUs that are planted in either improved or hybrid perennial Bermuda grasses. Effluent from the RCSs is applied to the LMUs. Solid manure is also delivered to third-party fields for land application; delivered to composting operations for eventual use as landscape products used on school playgrounds and football fields, as potting soils by nurseries, and on highways to establish or maintain grass medians and boundaries; and delivered to a bio gas plant to produce renewable natural gas.

#### **B. Draft Permit Terms**

On January 27, 2004, the Dairy filed an application to expand the CAFO to 3,000 head of cattle, 2,500 of which are to be milking cows. As a result of the issuance by the Commission of new CAFO rules in July 2004, the Dairy submitted a revised application on April 17, 2006.

No new animal housing or waste management structures will be built at the facility. The total required holding capacity without freeboard of the five RCSs will increase to 79.6 acre-feet by enlarging RCS No. 2 in order to accommodate a 25-year, 10-day rainfall event.

In issuing his Draft Permit, the ED determined that no discharge will be authorized into Green Creek, a tributary of the North Bosque River in Segment 1226 of the Brazos River Basin. The North Bosque River, Segments 1226 and 1255, was included in the 1998 Texas Clean Water Act 303(d) impaired waters inventory list and deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth. The designated uses and dissolved oxygen (DO)

criterion of Segment 1226 are contact recreation, public water supply, high aquatic life use, and 5.0 mg/L DO.<sup>23</sup>

TCEQ has developed two Total Maximum Daily Loads (TMDLs) and a TMDL Implementation Plan (TMDL IP) for phosphorus in the North Bosque River. The ED determined that the Draft Permit is consistent with the approved TMDL and the associated TMDL IP that establishes measures for reductions in loadings of phosphorus to the North Bosque River Watershed, and, thus, is consistent with the requirements of the antidegradation implementation procedures in 30 TAC § 307.5(c)(2)(G) of the *Texas Surface Water Quality Standards*.

### **C. Application Review Procedures**

As the first step of the application review process, TCEQ staff reviews the application and performs a technical review to make sure everything in the application is consistent with the rules and requirements of TCEQ. A geologist on the Water Quality Assessment Team reviews the recharge feature certification regarding the potential for migration of contaminants to the primary water-bearing units near the site of the facility. An agronomist on the Water Quality Assessment Team reviews the NMP for the facility. An aquatic scientist on the Water Quality Standards Team assesses the effects of the facility on the surface water quality of the waters of the state near the facility by performing an antidegradation review of the application, as well as by determining whether the critical habitat of federal endangered or threatened aquatic or aquatic dependent species or proposed species would be threatened by the facility.

After performing the review steps, the ED concluded that the Dairy's permit application was consistent with the TMDLs, the TMDL IP, and the CAFO rules in 30 TAC, Ch. 321. The U.S. Environmental Protection Agency (EPA) approved the Draft Permit on January 9, 2007.

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<sup>23</sup> ED Ex. 11.

The ED issued a Draft Permit, which included the following provisions:

- Increase of maximum capacity to 3,000 head, of which 2,500 are milking cows;
- RCS total required capacity without freeboard, 79.6 acre-feet, to accommodate a 25-year, 10-day rainfall event;
- Implementation of an RCS management plan;
- Land application of manure, sludge, or wastewater in accordance with an NMP;
- Operation under a Comprehensive Nutrient Management Plan (CNMP) certified by the Texas State Soil and Water Conservation Board;
- Report to TCEQ to substantiate a chronic rainfall discharge;
- Submission of a NUP based on crop removal on LMUs with a soil phosphorus concentration of 200-500 ppm, and a NUP based on crop removal and including a phosphorus reduction component for LMUs with a soil phosphorus concentration greater than 500 ppm.

After the receipt of comments from the public, the ED added the following additional conditions to the Draft Permit regarding the land application of effluent to third-party fields:

- Land application rates shall not exceed two times the phosphorus crop removal rate, not to exceed the crop nitrogen requirement, when the soil phosphorus concentration is greater than 50 ppm but less than or equal to 150 ppm.
- Land application rates shall not exceed one times the phosphorus crop removal rate, not to exceed the crop nitrogen requirement, when the soil phosphorus concentration is greater than 150 ppm and less than 200 ppm.
- Inclusion of third-party fields into the initial sampling requirements.

## V. ENVIRONMENTAL IMPACTS

### A. Whether the Expansion of the Facility Constitutes a "New Source" or a "New Discharger" Under Federal Law and Meets the Requirements Of 40 CFR § 122.4(I).

The federal rule at 40 Code of Federal Regulations § 122.4(i) states that no National Pollutant Discharge Elimination System (NPDES) permit may be issued to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. A source is determined to be a "new source" if:

- 1) It is constructed at a site at which no other source is located; or
- 2) It totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
- 3) Its processes are substantially independent of an existing source at the same site.<sup>24</sup>

A "new discharger" means:

- 1) Any building, structure, facility, or installation from which there is or may be a discharge of pollutants;
- 2) That did not commence the discharge of pollutants at a particular site prior to August 13, 1979;
- 3) Which is not a new source; and
- 4) Which has never received a finally effective NPDES permit for discharges at that site.<sup>25</sup>

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<sup>24</sup> 40 CFR § 122.29(b).

<sup>25</sup> 40 CFR § 122.2.

Protestants argue that, because the permit authorizes an enlargement of an RCS at the site, such enlarged RCS constitutes either a new source or a new discharger.

The ED determined that the expansion of the CAFO due to an increase in the number of cows and the enlargement of the size of one RCS did not meet the applicable regulatory definition of either a new source or a new discharge.<sup>26</sup> The determination that the proposed individually permitted CAFO was not a new source was based on the facts that the expanded RCS will be constructed on a site where a source is already located, that the Dairy is not seeking to replace the existing process, and that the expansion will be integrated with the existing facility. As for the determination that the enlarged RCS will not be a new discharger, the ED noted that the CAFO was covered under an existing NPDES permit since an NPDES authorization under the EPA's CAFO general permit was issued to the facility on July 1, 1994.<sup>27</sup>

Protestants argue that, because the expansion of the Dairy's CAFO authorizes new land application areas under the control of Dairy, referring to future third-party application fields over which the Dairy may exercise a level of control, these would constitute new sources. Protestants also argue that, because the expansion authorizes new land application areas subject to regulation under the NPDES, referring to future third-party application fields over which the Dairy would not exercise control, these would also be new sources. Protestants further argue that, because the permit will authorize discharges from the Dairy's equipment used to apply the wastes on the third-party application areas, these also would constitute new sources.

As pointed out by OPIC, inasmuch as no third-party fields have been identified as of the time of the hearing, and as such fields must be identified prior to the application of waste to them, Protestants' argument that third-party fields will constitute new sources is not an issue that can be

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<sup>26</sup> ED Ex. 8, Comments and Responses, pp. 2-4.

<sup>27</sup> HV Ex. 10, p. 2, lines 16-36.

addressed until such notice of intent to apply waste on identifiable third-party fields has been made. Such identification of third-party application fields can occur at any time after issuance of the permit. Likewise, until subsequent contracts for the land application of manure on third-party fields are entered into, there can be no determination whether such fields would be under the control of the Dairy.

The ALJ agrees with the points made by OPIC, and concludes that, until the Dairy actually notifies TCEQ of its intent to apply waste to specific third-party fields and the contract provisions regarding that application, the question as to whether such fields would constitute new sources is premature. At such time as specific third-party fields are identified, the TCEQ will need to determine if the issue constitutes an amendment to the permit that would require an opportunity for hearing.

On January 9, 2007, the EPA issued a letter stating that the draft permit appears to conform to the guidelines and requirements of the Clean Water Act, and that EPA had no objection to the draft permit.<sup>28</sup> The determination by the ED that the expansion of the facility will not constitute a new source or new discharge and the reasons for that determination, together with the fact that EPA did not object to the issuance of the Draft Permit sufficiently establishes that the expansion of the facility as contemplated by the Draft Permit will not constitute a new source or a new discharge.

**B. Whether the Draft Permit is Consistent with the TMDLs for the North Bosque River Watershed**

As noted above, TCEQ has developed two TMDLs and a TMDL IP for phosphorus in the North Bosque River. The TMDLs concluded that there were more nutrients getting into the river than was desirable and that phosphorus would be the controlling nutrient that should be limited. The TMDLs determined that reductions in phosphorus loading were possible and that it was appropriate

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<sup>28</sup> ED Ex. 12.

to seek substantial reductions.<sup>29</sup> The TMDL IP then determined to begin the reduction in phosphorus loading by controlling two sources of that loading, dairies and wastewater treatment plants. Unlike wastewater treatment plants, dairies function like a nonpoint source with a very intermittent discharge, usually only when it rains hard, so effluent permit limits for phosphorus loading are not feasible for them.<sup>30</sup> The TMDL IP outlined generic best management practices (BMPs) that dairies could use to reduce phosphorus loadings simulated in the TMDL model, called for increased education of dairy owners regarding waste management, and also called for increased enforcement against non-compliant dairies.<sup>31</sup>

Once the TMDL IP was approved by the Commission, the CAFO rules were revised to establish what conditions would be included in CAFO permits. In regard to the North Bosque River segments, the rule at 30 TAC § 321.42 sets forth the requirements for individual dairy CAFO permits. Those rule provisions include:

- RCS requirements;
- Management and disposal of waste requirements,
- Application of waste to third-party fields requirements;
- Soil sample requirements;
- Requiring the CAFO operator to inspect the irrigation system to prevent discharges, and if a discharge is documented as a violation, then, if required by the ED, to install an automatic emergency shutdown or alarm system to notify the operator of system problems;

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<sup>29</sup> HV Ex. 31, p. 42, line 5- p. 43, line 4.

<sup>30</sup> HV Ex. 31, p. 50, line 1- p. 52, line 17.

<sup>31</sup> HV Ex. 31, p. 59, lines 3-25; p. 62, line 4 – page 63, line 13.

- Prohibiting the CAFO operator to use land application of manure, litter, or wastewater in a major sole-source impairment zone between midnight and 4 a.m.;
- Requiring the CAFO to develop and operate under a certified comprehensive nutrient management plan (CNMP);
- Requiring, in the event of a discharge from the RCSs or LMUs during a chronic or catastrophic rainfall event or resulting from catastrophic conditions, the CAFO operator to orally notify the appropriate regional office within one hour of the discovery of the discharge, and to send written notification to the appropriate regional office within 14 working days.
- Requiring a CAFO operator who has an unauthorized discharge from the RCS or LMU to submit a report to the appropriate regional office showing the facility records that substantiate that the overflow was a result of cumulative rainfall that exceeded the volume of storage capacity and margin of safety without the opportunity for dewatering, and was beyond the control of the operator; and
- Requiring CAFO operators who utilize LMUs to
  - adhere to the required vegetative buffers:
  - install and maintain a filter strip or vegetative barrier between the vegetative buffer and land application area; and
  - install and maintain contour buffer strips in the land application area nearest to the vegetative barrier or filter strip.

As noted above, the ED determined that the Draft Permit is consistent with the approved TMDL and TMDL IP. Protestants argue that the Draft Permit is inconsistent with the phosphorus loading allowed by the TMDL and with the BMPs set forth in the TMDLs.

Charles Maguire is the manager of the water quality assessments section and the team leader for CAFO permitting for TCEQ. Mr. Maguire testified that 30 TAC § 321.42 is what TCEQ

promulgated to carry out the TMDL IP.<sup>32</sup> Mr. Maguire pointed out that the Draft Permit includes the following conditions:

- That the RCSs be sized in order to hold a designed storm event that amounts to a 25-year, 10-day storm;
- Provides for a larger storm design, storm event requirement and an operating volume requirement for the RCSs;
- Reflects LMU acreages that meet buffering requirements, including setbacks, vegetative barriers or filters, and buffer strips to which no waste can be applied, as well as comply with the NMP regarding maximum application rates and planned application rates;
- Requires a NUP;
- Requires a RCS management plan that includes pond markers, and the establishment of operation and maintenance protocols;
- Includes sludge volume requirements;
- Includes air standard requirements, including buffer requirements; and
- Includes a requirement to maintain a minimum treatment volume for process generated wastewater.<sup>33</sup>

Mr. Maguire stated that the Draft Permit was in conformance with the CAFO rules, which are themselves consistent with the TMDLs and TMDL IP.<sup>34</sup>

Protestants argue that reliance on the rules is not sufficient to ensure compliance with the TMDLs because the rules do not incorporate the allowable loadings under the TMDLs, do not

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<sup>32</sup> ED Ex. 13, p.23, lines 19-21.

<sup>33</sup> ED Ex. 13, p. 28, line 23 - p. 36, line 2.

<sup>34</sup> ED Ex. 13, p. 37, line 20 - p. 38, line 2.

establish a means to determine the remaining load allocations, do not establish a means to determine other loading sources, and do not provide a method for determining the loading from the proposed permit. In addition, Protestants argue that the rules and TMDL IP are not sufficient to implement the TMDLs.

Larry Koenig was the project manager on the North Bosque TMDL project for TCEQ. Mr. Koenig explained that the numerical goal that the TMDLs seek to achieve for the North Bosque River is to lower the annual average loading values of phosphorus by an approximate 50 percent at five index sites or measuring points along the river.<sup>35</sup> Mr. Koenig stated that one means to implement the TMDLs was through the issuance of new permits incorporating BMPs. Such inclusion of BMPs in the permit is the means to achieve a decrease of the annual average concentration of phosphorus from 117 kg. per year to 54.5 kg. per year at the Above Meridian Site on the river, which is the nearest index site downstream from the Dairy.<sup>36</sup>

As explained by Mr. Koenig, the TMDLs do not spell out what should be in an individual permit; rather, they are a high-level assessment of how much reduction is possible if certain management practices are employed. The details of the TMDLs are developed through the TMDL IP, the revisions to the CAFO rules, and the issuance of permits under those revised rules. In short, according to Mr. Koenig, the permit has to be consistent with the rules promulgated to implement the TMDLs, not with the TMDLs themselves, which only set the goals and general guidelines.<sup>37</sup>

Based on the evidence in the hearing, it is clear that TCEQ promulgated the 2004 revisions to 30 TAC § 321.42 as part of the implementation of the TMDLs. The rule, as well as the Draft Permit, requires a dairy CAFO operator to collect and report soil samples to monitor the effects of its land

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<sup>35</sup> Transcript, p. 192, lines 1 - 24.

<sup>36</sup> Transcript, p. 200, lines 1 – p. 201, line 20.

<sup>37</sup> Transcript, p. 211, lines 10 – 23.

applications, as well as to report any and all discharges made from the facility. Because the TMDLs and TMDL IP are constantly being reviewed in light of new data, the Draft Permit specifically authorizes the ED to reopen the permit to add additional requirements if the Dairy's reports and/or the continued sampling and modeling of the North Bosque River indicate that such additional requirements are necessary. While the rules may not specifically incorporate the allowable loadings under the TMDLs, establish a means to determine the remaining load allocations, establish a means to determine other sources, or provide a method for determining the loading from the proposed permit, they are intended to list the permit requirements that, if met, will implement the TMDLs.

Based on the preponderance of the evidence the Draft Permit is consistent with the CAFO rules, and, thereby, is as consistent with the TMDLs as can feasibly be determined at the present time.

**C. Whether Hidden View Dairy's Compliance History Warrants Denial of the Proposed Permit.**

The Dairy's compliance history was rated as "high" in the latest compliance history, as of September 1, 2007. Such a classification is the best possible score that a permit holder can achieve and is an indication that there are no ongoing compliance issues at the facility that need to be addressed in the Draft Permit.<sup>38</sup> The Dairy's compliance history does not support a denial of the Draft Permit.

**D. Whether The Proposed Permit Complies With Applicable Odor Control Requirements.**

The rule at 30 TAC § 321.43 sets forth the air standard permit requirements for a CAFO. They require that a facility be operated in such a manner as to prevent the creation of a nuisance, and include provisions for abating any nuisance condition as soon as practicable. RCSs must be designed and operated to minimize odors in accordance with accepted engineering practices. The premises

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<sup>38</sup> ED Ex. 13, p. 47, line 19-p. 48, line 7.

must be maintained to prevent the occurrence of nuisance conditions from odors. The earthen pen areas must be maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding. The Draft Permit specifically includes all of the air standard permit requirements of the above-stated rule.

William De Jong is the managing general partner of the Dairy. He testified that he and his family live on the Dairy property only a few yards from cow-management areas. Mr. De Jong stated that he has not received any complaint or communication from Protestant Smith regarding odors from the Dairy or any negative impact of the Dairy on Mr. Smith's property.<sup>39</sup>

According to Mr. De Jong, the most significant odor control practice utilized by the Dairy is a freestall vacuum system. All cow feed and travel areas are vacuumed twice a day, and the slurry removed from those areas is then deposited in a concrete-lined slurry pit where it awaits daily removal to an off-site location. The vacuum system minimizes the nutrients and solids entering the RCSs or otherwise being exposed to the environment, thereby lessening the potential for odor. The Dairy also operates a two-stage RCS system in order to minimize any odor coming from the RCSs, and maintains settling basins to minimize the quantity of nutrients and solids entering the RCSs. Manure is scraped from the dry lots twice a week, tested, weighed, and hauled off-site. All of these practices diminish odors and reduce the potential for fly breeding.<sup>40</sup>

Protestant Smith did not appear at the hearing, nor did he prefile any testimony. His son, Parc Smith, who is not a party in the hearing, did prefile testimony in which he stated that there is a heavy smell of cow manure all over his father's property, which is much stronger along the side of the property that is adjacent to the southeast boundary of the Dairy.<sup>41</sup> Mr. Smith did not offer any

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<sup>39</sup> App. Ex. 10, p.10, lines 33-38.

<sup>40</sup> App. Ex. 10, p.11, lines 11-39.

<sup>41</sup> PS Ex. 1, p. 9, lines 5 -11.

evidence that the odors are caused by the Dairy or that they impede the normal use and enjoyment of the property. He acknowledged that cattle are being run on his father's property by a lessee.

Based on the credible evidence, the Draft Permit complies with the air standard permit requirements of 30 TAC § 321.43, particularly as they concern the minimization of odors. The Dairy has instituted BMPs to comply with those requirements.

- E. Whether the Proposed Permit is Protective of Downstream Uses and Complies with Applicable Water Quality Standards.**
  
- F. Whether the Anti-Degradation Analysis Performed for the Expanded Facility Properly Addresses the Impact on the Quality of the Receiving Waters in TCEQ Rules and Texas Statutes.**

In performing an antidegradation analysis of a proposed permit, TCEQ uses numerical criteria that have been set for measurable parameters such as DO or pH. Because Texas has not established numerical criteria for nutrients such as phosphorus and nitrogen, those substances are evaluated using a narrative criteria. The narrative criteria in 30 TAC § 307.4(e) provides that nutrients from permitted discharges "shall not cause excessive growth of aquatic vegetation which impairs an existing, attainable, or designated use."

An antidegradation analysis of the impact of the proposed discharge on the receiving stream involves two separate analyses: a Tier 1 review for waters the quality of which do not exceed levels necessary to support propagation of fish, shellfish, wildlife, and recreation in and on the water (fishable/swimmable quality); and a Tier 2 review for waters the quality of which do exceed fishable/swimmable quality. Because the quality of Segment 1226 does not exceed fishable/swimmable quality, a Tier 1 review was performed. Under a Tier 1 review, the TCEQ must determine that existing uses and water quality sufficient to protect those uses will be maintained.

As noted above, Segment 1226 of the North Bosque River is deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth. The designated uses of the segment are contact recreation, public water supply, and high aquatic life, which requires 5.0 mg/L of dissolved oxygen (DO). Green Creek is currently listed on the State's inventory of impaired and threatened waters, *i.e.*, the Clean Water Act Section 303(d) list for bacteria. Green Creek is an unclassified segment of the North Bosque River; and, as such, its designated uses are limited aquatic life and contact recreation.

As part of the permit review process, Lori Hamilton, who is on the Water Quality Standards Team of TCEQ, concluded that the incorporation of the requirements of 30 TAC § 321.42 in the Draft Permit would be sufficient to preclude an increase in pollutant loadings from the dairy, so that the permit would be consistent with the requirements of the antidegradation implementation procedures.<sup>42</sup> In addition, the Land Application Team determined adequate buffer distances between LMUs and surface waters to minimize runoff, which distances were then incorporated into the Draft Permit.<sup>43</sup>

Lial Tischler, Ph.D., a consulting environmental engineer and expert witness for Dairy, testified that the Draft Permit will reduce the authorized discharge of pollutants from the Dairy, as compared to the requirements of the existing permit and the CAFO rules prior to the 2004 revisions, because the Draft Permit limits wastewater and solid waste application rates based on the measured soil total phosphorus (TP) concentrations in the LMUs. He stated that the Draft Permit requires that the existing RCSs be expanded in volume to reduce the potential for overflows to extremely infrequent 25-year, 10-day precipitation events. Dr. Tischler further testified that the increase in the number of cattle would have no effect on the allowable discharge of pollutants because any pollutants that could be discharged are controlled not by the waste output but by the allowable

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<sup>42</sup> ED Ex. 11, p.1.

<sup>43</sup> ED Ex. 11, p.1 and Ex. 4, pp. 32-33.

application rates for the available LMUs, which rates are based on the quality of the receiving soils based on measured soil TP concentrations.<sup>44</sup>

Dr. Tischler also testified that Green Creek does not comply with the narrative criterion for nutrients and algae and is on the TCEQ impaired waters inventory list due to elevated bacterial concentrations. Neither does Green Creek comply with the applicable criteria for DO. On the other hand, while Segment 1226 likewise does not comply with the narrative criterion for nutrients and algae, it does support all other applicable criteria and uses, including the bacteria standards and the DO criteria.<sup>45</sup> Dr. Tischler is of the opinion that the Draft Permit will comply with the applicable water quality standards and result in a decrease in the allowable amounts of all pollutants generated by the Dairy, including bacteria and oxygen-demanding substances, that could be discharged into Green Creek. In turn, the existing water quality of the downstream waters will improve.<sup>46</sup>

In regard to the antidegradation analysis by Lori Hamilton, Dr. Tischler testified that it accurately characterized the provisions of the Draft Permit that will result in significant net decreases in the quantities of pollutants that are authorized for discharge by the Dairy operations. Because it sets limits and conditions that are more stringent than previous permits, as a result, it will reduce the historic levels for all pollutants discharged by the Dairy. Dr. Tischler pointed out that the RCS design required by the Draft Permit will eliminate wastewater overflows to the watershed except when the 10-day, 25-year rainfall is exceeded. Under those extreme conditions the watershed would be experiencing extremely high flows in all of the streams. As a result, such a discharge would be so diluted as to be indistinguishable from other sources of pollutants discharged during the event. He concluded that there will be no degradation of existing water quality.<sup>47</sup>

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<sup>44</sup> App. Ex. 46, p. 11, line 38 – p.12, line 4.

<sup>45</sup> App. Ex. 46, p. 13, line 32 – p.14, line 6.

<sup>46</sup> App. Ex. 46, p. 14, lines 13 – 25.

<sup>47</sup> App. Ex. 46, p. 15, lines 13 -18; p. 16, lines 30 - 42.

Protestants argue that the discharge authorized by the Draft Permit will contribute to the decrease of the DO levels of Green Creek. However, in response to that argument, Dr. Tischler testified that, since any discharges from the Dairy would occur during high flow events, it is very unlikely that the discharges would have any impact on DO because, normally, the low DO in a stream such as Green Creek occurs as a result of dry weather conditions.<sup>48</sup>

Protestants assert that because the terms of the NMP are not included in the Draft Permit and because the RCS plan and the CNMP have not been made available for public review, Protestants have not been provided sufficient information to conduct a meaningful review of the Draft Permit. The Dairy points out that the NMP is part of the permit application and is incorporated by reference in the Draft Permit.<sup>49</sup> As for the CNMP, the Dairy provided it to Protestants as part of discovery. Finally, in regard to the RCS plan, the Draft Permit requires that it be developed and implemented upon issuance of the permit.<sup>50</sup>

Protestants argue that the TCEQ did not conduct an accurate antidegradation review because it did not perform a Tier 2 review. However, as stated above, the Tier 1 review was the proper level of review required for the receiving waters due to their classification and designated uses.

In addition, Protestants argue that because bacteria is not addressed by the TMDL, an anti-degradation analysis to consider the impact of the bacteria discharges on Green Creek and the North Bosque River was required. In response to that argument, Dr. Tischler testified that the BMPs regarding application rates on LMUs, the vegetative buffer areas, and the prevention of overflows

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<sup>48</sup> Tr. Vol. 2, p. 292, lines 14 – 19.

<sup>49</sup> App. Ex. 28, pp. 1127-1145; App. Ex. 14, p. 2.

<sup>50</sup> App. Ex. 14, p. 31.

from RCSs will serve to reduce bacteria discharges; therefore, there would be no degradation of the receiving waters.<sup>51</sup>

In conclusion, the evidence establishes that the Draft Permit is protective of downstream uses and complies with applicable water quality standards. In addition, the evidence establishes that the Tier 1 review was the proper level of review required for the receiving waters and the anti-degradation analysis performed for the expanded facility properly addresses the impact on the quality of the receiving waters under TCEQ rules and Texas statutes.

**G. Whether the Proposed Permit Includes Adequate Requirements to Control Pathogens and Bacteria in Compliance with Applicable Rules and Regulations.**

Dr. Tischler testified that the concentrations of indicator bacteria (*E. coli* and fecal coliform) in Green Creek exceed the applicable contact recreation standards.<sup>52</sup> He stated that the primary sources of elevated bacteria concentrations in Green Creek are not yet identified, but that the LMUs in the North Bosque River watershed are likely a minor contributor to the indicator bacteria concentrations.<sup>53</sup>

Lori Hamilton noted that, according to the TMDL IP, management measures for control of phosphorus loading will have some corollary effect on reducing bacteria loading, since the nonpoint source nutrient and bacteria loads largely originate from the same sites and materials and are transported via the same processes and pathways.<sup>54</sup>

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<sup>51</sup> Tr. Vol. 2, p. 309, line 17 – p. 310, line 11.

<sup>52</sup> App. Ex. 46, p. 17, lines 9-11.

<sup>53</sup> App. Ex. 46, p. 17, lines 23 -37.

<sup>54</sup> App. Ex. 41, p. 2.

As noted above, Dr. Tischler testified that the BMPs regarding application rates on LMUs, the vegetative buffer areas, and the prevention of overflows from RCSs also will serve to reduce bacteria discharges.<sup>55</sup> In addition, the Draft Permit requires that the Dairy's cattle, another source of bacteria, be fenced off from all waterways to prevent their access to Green Creek, thereby reducing the discharge of manure into the stream.<sup>56</sup>

Protestants argue that because TCEQ has not performed a case-by-case evaluation of the best conventional pollutant control technology (BCT) requirements for pathogens, it has not been shown that the Draft Permit will require BCT for pathogens. However, Dr. Tischler noted that pathogens in surface waters are not measured directly.<sup>57</sup> He stated that the BMPs such as fencing the cattle off from Green Creek, and the use of a 100 ft. vegetative buffer and a 36 ft. vegetative filter strip will ensure that no animals from the Dairy come into direct contact with Green Creek and reduce potential run-off from the Dairy property to the creek. Dr. Tischler opined that these measures are the best regulatory controls currently identified to reduce the potential for both bacteria and pathogen contamination.<sup>58</sup>

The ALJ concludes that the Draft Permit includes adequate requirements to control both bacteria and pathogens. In addition, absent a standard against which to measure any pathogens in Green Creek, there is no legal basis to require the Dairy to provide additional measures to those contained in the Draft Permit to control pathogens, either under the general discharge rules or the antidegradation requirements.

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<sup>55</sup> Tr. Vol. 2, p. 309, line 17 – p. 310, line 11.

<sup>56</sup> App. Ex. 14, VII (B)(2), p. 21.

<sup>57</sup> App. Ex. 46, p. 17, lines 9 -11.

<sup>58</sup> App. Ex. 46, p. 18, lines 9 -17.

**H. Whether the Proposed Permit Correctly Accounts for the Amount of Phosphorus That Will Be Produced by the Permitted Number of Animals at the Dairy.**

Norman Mullin, a licensed professional engineer, is the permitting and environmental consultant for the Dairy. As part of the permit application, Mr. Mullin calculated the approximate phosphorus yield of the current dairy operation of 2,000 cows and also of the proposed operation of 3,000 cows. Based on his calculations, the total phosphorus loadings will increase from 377 to 525 pounds per day (lb./day). He stated that these calculations were based on data from the American Society of Agricultural and Biological Engineers publication titled *Manure Production and Characteristics*. Mr. Mullin testified that, on a site-specific basis, utilizing a slurry analysis of the manure from the freestall barns and the measured manure volume of 18 gallons per cow per day for the existing 2,000 cows, the yield would be 330 pounds of plant-available phosphorus. He stated that this calculation compares favorably with the conservative published data of 377 pounds for 2,000 cows. He further testified that his calculations of the volume and phosphorus concentration of the manure accounts for the manure generated at the three cattle locations at the facility: the open lot pens, the freestall barns, and the milking parlor.<sup>59</sup>

Dr. Paul Askenasy is the lead agronomist on the Water Quality Assessment Team of the TCEQ. As part of the permit review, Dr. Askenasy evaluated the NMP that was part of the application, particularly the criteria regarding the amount of phosphorus in the soil, crop uptakes for phosphorus and nitrogen, and recommended amounts of nitrogen and phosphorus to grow a particular crop to a particular yield. As part of that evaluation, Dr. Askenasy verified the amount of wastewater and manure that were used as inputs in the application to determine land application rates. Dr. Askenasy concluded that the NMP was valid and acceptable.<sup>60</sup>

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<sup>59</sup> App. Ex. 26, p. 26, lines 12-40; p. 29, lines 11-18.

<sup>60</sup> ED. Ex. 15, p. 17, lines 10-21; p.20, lines 1-12; p.45, lines 2-7.

Protestants offered no evidence to indicate that Mr. Mullin's calculations were incorrect. Based on the unrefuted testimony of Mr. Mullin and Dr. Askenasy, the Draft Permit correctly accounts for the amount of phosphorus that will be produced by the permitted number of animals at the Dairy.

**I. Whether Site-Specific Factors Require Additional Special Conditions in the Permit Relating to Waste Management Practices.**

Protestants assert that because LMU No. 7 is located within the 100-year floodplain, application of waste on that site should be prohibited.

Mr. Mullin acknowledged that a substantial portion of LMU No. 7 is located in the 100-year floodplain. However, he further testified that being in the 100-year floodplain would have no influence on runoff into the surface waters because of the protective measures built into the Draft Permit to prevent and control runoff.<sup>61</sup>

OPIC argued that additional special conditions regarding third-party application field contracts should be added to the Draft Permit to address the arguments of Protestants regarding the third-party application field requirements and to make the permit more protective. Specifically, OPIC asserts that the following conditions should be included in third-party application-field contracts:

- Crop phosphorus requirements will only be met with waste/wastewater (not by adding commercial phosphorus).
- Limit the phosphorus application to 50 pounds per acre (lb/ac) or crop requirement, whichever is less.

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<sup>61</sup> Tr. Vol. 1, p. 121, line 1 – p. 124, line 14.

- Limit the maximum phosphorus level in the soil to 150 ppm instead of 200 ppm.
- Expand down-gradient, edge of field buffer distances from 100 feet to 150 feet.

Applicant responds that, while it intends to include these provisions in its third-party application field contracts, the inclusion of such conditions in the permit is not justified by site-specific factors. The ED points out that the Draft Permit already incorporates the 30 TAC § 321.42(j)(1) requirements for third-party field contracts, so additional mandatory contract provisions would be stricter than is currently required by the rules.

The ALJ is of the opinion that the current provisions of the Draft Permit are in compliance with the requirements for third-party field contracts in 30 TAC § 321.42(j)(1). There was no evidence submitted that any site-specific factors would warrant special conditions more stringent than the requirements set forth in the rules. At such time as TCEQ determines to add additional requirements to the rule, the ED has the authority to reopen the permit to include such additional requirements, as well as to incorporate those requirements when the Dairy seeks to renew the permit at the end of its five-year term. For these reasons, the ALJ concludes that there is no basis for requiring additional special conditions in the permit relating to waste management practices.

## VI. TRANSCRIPTION COSTS

At the conclusion of the hearing on the merits, the parties provided their positions on the appropriate allocation of transcription costs under the factors set forth in 30 TAC § 80.23.<sup>62</sup> The Dairy contended that a 40-60 percent allocation between itself and the Protestants would be reasonable because Protestants utilized approximately 6.5 hours at the preliminary hearing and hearing on the merits as opposed to the Dairy's use of 4.5 hours. The Dairy contended that

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<sup>62</sup> Tr. Vol. 2, pp. 139-150.

Protestants' inefficient use of time, lack of preparation, and attempts to use cross-examination to conduct discovery unnecessarily prolonged the hearing time.

Protestants argued that the Dairy should be assessed 85 percent of the transcription costs, with Protestant Sierra Club being assessed 10 percent, and Protestant Pritchey Smith assessed percent. Protestants noted that they had limited resources while the Dairy has a reliable cash flow and could reasonably anticipate the transcript costs as part of the costs to obtain the permit. Protestants point out that the Dairy will reap significant economic benefits if the permit is granted while Protestants stand to receive no economic benefits. Finally, Protestants assert that spending only two days in cross-examining the Dairy's seven witnesses was not an unreasonable use of time. There was no evidence taken regarding the finances of any party.

After reviewing the parties' arguments in light of the factors in 30 TAC § 80.23(d), the ALJ concluded that 75 percent of the costs of reporting and transcription costs<sup>63</sup> should be allocated to the Dairy. The remaining 25 percent of the costs should be allocated equally between Sierra Club and Pritchey Smith. All participants benefitted from having the multi-day proceeding transcribed and all fully participated in the hearing to develop a complete record for the Commission to consider.

## VII. STANDARD LANGUAGE

In addition to addressing the issues referred by the Commission, the proposed order also includes a conclusion of law and an ordering provision stating that the terms of the permit and the Executive Director's review of the application comply with all applicable federal and state requirements. These items are included as a convenience to the Commission in order to allow it to more easily issue a single decision on the application in accordance with 30 TAC Section 50.117(g). The ALJ makes no recommendation regarding issues not referred for hearing."

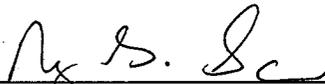
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<sup>63</sup> That is, transcriptions provided to the ALJs for use in preparation of the PFD and Proposed Order and that accompanies the record of the case sent to the Commission.

## VII. CONCLUSION

In conclusion, the ALJ found that Dairy met its burden of proof on all referred issues. On the basis of his conclusions on the referred issues, the ALJ concludes that, taking the evidence as a whole, Dairy met its burden of proof to show that the operation of the dairy as proposed would meet all standards set forth in the applicable statutes and rules for operation of a dairy CAFO. Consequently, the ALJ recommends that the Commission grant Dairy's application for an amendment to Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0003197000 to authorize an expansion of its existing dairy from 2,000 to 3,000 head of cattle. The ALJ further recommends that the Commission adopt all Findings of Fact and Conclusions of Law in the Proposed Order on these issues.

**SIGNED November 24, 2008.**

  
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**ROY G. SCUDDAY**  
**ADMINISTRATIVE LAW JUDGE**  
**STATE OFFICE OF ADMINISTRATIVE HEARINGS**

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**



**ORDER  
CONCERNING THE APPLICATION BY  
HIDDEN VIEW DAIRY  
FOR AMENDMENT TO TPDES PERMIT NO. WQ0003197000  
TCEQ DOCKET NO. 2007-0831-AGR  
SOAH DOCKET NO. 582-08-0007**

On \_\_\_\_\_, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of Hidden View Dairy (the Dairy) for a permit to expand an existing dairy in Erath County, Texas. A Proposal for Decision (PFD) was presented by Roy G. Scudday, and Administrative Law Judge (ALJ) with the State Office of Administrative Hearings (SOAH), who conducted a public hearing on this matter on August 19 and 20, 2008, in Austin, Texas. The record closed on October 17, 2008.

The following are parties to the proceeding: the Dairy; the Executive Director (ED); Pritchey Smith and the Lone Star Chapter of the Sierra Club (Protestants); and the Office of Public Interest Counsel (OPIC).

After considering the Proposal for Decision, the Commission makes the following Findings of Fact and Conclusions of Law.

## I. FINDINGS OF FACT

### GENERAL FINDINGS

1. On January 27, 2004, the Dairy applied to the TCEQ for an amendment to Permit No. WQ0003197000 to authorize an expansion of the existing dairy from 2,000 to 3,000 head of cattle.
2. As a result of the issuance by the TCEQ of new Concentrated Animal Feeding Operation (CAFO) rules in July 2004, the Dairy submitted a revised application on April 17, 2006.
3. On or about November 22, 2006, the TCEQ Executive Director (ED) issued a Notice of Application and Preliminary Decision for CAFO Water Quality Permit Major Amendment and recommended issuance of the Permit.
4. Public comments and hearing requests were filed by interested persons concerning the Application and Draft Permit, which were considered by the Commission on August 22, 2007.
5. The dairy is located on the northwest side of County Road 522, approximately one-quarter mile northeast of the intersection of County Road 522 and State Hwy. 6 in Erath County, Texas.
6. The Draft Permit authorizes no discharge into Green Creek, a tributary of the North Bosque River in Segment 1226 of the Brazos River Basin, which creek runs through the property of Dairy.
7. On August 27, 2007, the TCEQ determined that Carol Robbins and the Lone Star Chapter of the Sierra Club were affected persons entitled to request a contested case hearing.

8. By Interim Order dated August 31, 2007, the TCEQ referred the matter to SOAH for a contested-case hearing on the following issues:

- a. Whether the expansion of the facility constitutes a “new source” or new discharger” under federal law and meets the requirements of 40 CFR § 122.4(i);
- b. Whether the proposed permit is consistent with the TDML for the North Bosque River watershed;
- c. Whether Hidden View Dairy’s compliance history warrants denial of the proposed permit;
- d. Whether the proposed permit complies with applicable odor requirements;
- e. Whether the proposed permit is protective of downstream uses and complies with applicable water quality standards;
- f. Whether the anti-degradation analysis performed for the expanded facility properly addresses the impact on the quality of the receiving waters and whether the proposed permit violates the anti-degradation requirements in TCEQ rules and Texas statutes;
- g. Whether the proposed permit includes adequate requirements to control pathogens and bacteria in compliance with applicable rules and regulations;
- h. Whether the proposed permit correctly accounts for the amount of phosphorus that will be produced by the permitted number of animals at the Dairy; and
- i. Whether site-specific factors require additional special conditions in the permit relating to waste management practices.

9. On October 2, 2007, Notice of Hearing on the application was published in the *Stephenville Empire Tribune*, a newspaper published and generally circulated in Erath County, Texas.

10. On November 8, 2007, a preliminary hearing was held in Austin, Texas. The following were designated as parties to the proceeding: The Dairy, ED, Pritchey Smith, the Lone Star Chapter of the Sierra Club, and OPIC.
11. The evidentiary hearing was conducted on August 19-20, 2008, in Austin, Texas, by ALJ Roy G. Scudday. The record closed October 17, 2008.

#### **DAIRY OPERATION**

12. The dairy facility currently contains 2,000 cows and consists of open lots, freestall barns, a milking parlor, one treatment pond, and four retention control structure (RCSs), which RCSs have a total required capacity, without freeboard, of 53.4 acre-feet, and an actual capacity of 114.30 acre-feet.
13. The primary source of process-generated wastewater is wash water from the milking parlor operations. The process-generated wastewater is directed to a separator, into settling basins, into the treatment pond, and then to the RCSs for storage.
14. The dairy facility has nine land management units (LMUs) that are planted in either improved or hybrid perennial Bermuda grasses. Effluent from the RCSs is applied to the LMUs.
15. Solid manure is also delivered to third-party fields for land application; delivered to composting operations for eventual use as landscape products used on school playgrounds and football fields, as potting soils by nurseries, and on highways to establish or maintain grass medians and boundaries; and delivered to a bio gas plant to produce renewable natural gas.

16. No new animal housing or waste management structures will be built at the facility as a result of the expansion.

#### **DRAFT PERMIT**

17. The North Bosque River, Segments 1226 and 1255, was included in the 1998 Texas Clean Water Act 303(d) impaired waters inventory list and deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth. The designated uses of Segment 1226 are contact recreation, public water supply, and high aquatic life uses, which requires 5.0 mg/L of dissolved oxygen (DO).
18. Green Creek is currently listed on the State's inventory of impaired and threatened waters, *i.e.*, the Clean Water Act Section 303(d) list, for bacteria. Green Creek is an unclassified segment of the North Bosque River; and, as such, its designated uses are limited aquatic life and contact recreation.
19. TCEQ has developed two Total Maximum Daily Loads (TMDL) and a TMDL Implementation Plan (TMDL IP) for phosphorus in the North Bosque River.
20. The TMDLs concluded that phosphorus was the controlling nutrient that should be limited in the North Bosque River and that it was appropriate to seek substantial reductions in phosphorus loading.
21. The TMDL IP sought to control two sources of phosphorus loading on the North Bosque River: dairies and wastewater treatment plants.
22. Unlike wastewater treatment plants, dairies function like a nonpoint source with a very intermittent discharge, usually only when it rains hard, so effluent permit limits for phosphorus loading are not feasible for them.

23. The TMDL IP outlined generic types of management practices that dairies could use to reduce phosphorus loadings, called for increased education of dairy owners regarding waste management, and also called for increased enforcement against noncompliant dairies.
24. Once the TMDL IP was approved by the Commission, the CAFO rules were revised to establish what conditions would be included in CAFO permits. In regard to the North Bosque River segments, 30 TAC § 321.42 sets forth the requirements for individual dairy CAFO permits.
25. The Draft Permit incorporates the requirements of 30 TAC §§ 321.40(h) and 321.42, including the following:
- Increase of maximum capacity to 3,000 head, of which 2,500 are milking cows;
  - No discharge into Green Creek;
  - RCS total required capacities without freeboard: 79.6 acre-feet to accommodate a 25-year/10-day rainfall event;
  - Implementation of an RCS management plan;
  - Provide for management and disposal of waste by beneficially using the waste outside the watershed, disposing of the waste in landfills outside the watershed, delivering the waste to a composting facility, putting the waste to another approved beneficial use, or applying the waste in accordance with a Nutrient Management Plan (NMP);
  - Land application of manure, sludge, or wastewater in accordance with an NMP;
  - Operation under a Comprehensive Nutrient Management Plan (CNMP) certified by the Texas State Soil and Water Conservation Board;
  - Animals confined at the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.

- Vegetative buffer strips of no less than 100 feet will be maintained between the manure, litter, or wastewater application areas and the waters of the state;
  - Report to TCEQ to substantiate a chronic rainfall discharge;
  - Submission of a NUP based on crop removal on LMUs with a soil phosphorus concentration of 200-500 ppm, and a NUP based on crop removal and including a phosphorus reduction component for LMUs with a soil phosphorus concentration greater than 500 ppm; and
  - Permit shall be effective for a term of five years.
26. In accordance with 30 TAC §307.5 and the TCEQ implementation procedures for the *Texas Surface Water Quality Standards*, the TCEQ performed an antidegradation review of the receiving waters.
27. On January 9, 2007, the Environmental Protection Agency (EPA) issued a letter stating that the Draft Permit appears to conform to the guidelines and requirements of the Clean Water Act, and that EPA had no objection to the Draft Permit.

**"NEW SOURCE" OR "NEW DISCHARGER"**

28. Pursuant to 40 Code of Federal Regulation (CFR) § 122.4(i), a National Pollutant Discharge Elimination System (NPDES) permit may not be issued to a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards.
29. The Dairy's expansion enlarges an existing lagoon, RCS No. 2, and increases its herd size from 2,000 head to 3,000 head of confined animals.
30. The enlargement of RCS No. 2 is the only physical modification proposed to the Dairy's facility.

31. The proposed expansion will not totally replace the Dairy's existing production facility.
32. The proposed expansion will be fully integrated with the existing dairy facility and will not operate substantially independent of the Dairy's process or production equipment.
33. The proposed expansion is an extension of the existing, previously-permitted dairy CAFO.
34. The Dairy's CAFO has been covered under an NPDES permit since an NPDES authorization under the EPA CAFO general permit was issued to the facility on July 1, 1994.
35. Because no third-party application fields have been identified by the Dairy, and because such fields are not required to be identified until after the permit is issued, and then only at such time as the Dairy indicates its intent to commence the application of manure on them, the issue of whether such fields would constitute new sources or new dischargers can not be addressed until specific third-party fields are identified.

**CONSISTENCY OF DRAFT PERMIT WITH THE TMDL FOR THE NORTH BOSQUE RIVER WATERSHED.**

37. The TMDL and TMDL IP set forth pollutant reductions and suggest specific best management practices (BMPs) to achieve targeted goals for improving water quality in the North Bosque River watershed.
38. For CAFOs, the TMDL goals, reductions and suggested BMPs are expressly implemented by the 2004 CAFO rules being incorporated in whole or in part in individual permits.
39. One element of the implementation of the TMDL IP is through the issuance of new permits incorporating BMPs in order to achieve a decrease of the annual average concentration of phosphorus in the North Bosque River.

39. The Draft Permit, by incorporating the requirements of 30 TAC § 321.42, requires the use by the Dairy of BMPs to help achieve the goal of the TMDL.

### **COMPLIANCE HISTORY**

41. The Dairy's compliance history was rated as "high" in the latest compliance history as of September 1, 2007.
42. A "high" classification is the best possible score that a permit holder can achieve and is an indication that there are no ongoing compliance issues at the facility that need to be addressed in the Draft Permit.

### **ODORS**

43. The Draft Permit incorporates the 30 TAC § 321.43 air standard permit requirements that include the following:
- the facilities shall be operated in such a manner as to prevent the creation of a nuisance, as well as abating any nuisance condition as soon as practicable,
  - RCSs shall be designed and operated to minimize odors in accordance with accepted engineering practices,
  - the premises shall be maintained to prevent the occurrence of nuisance conditions from odors, and
  - earthen pen areas shall be maintained by scraping uncompacted manure and shaping pen surfaces as necessary to minimize odors and ponding.
44. Dead animals will be properly disposed of within three days in a manner that prevents nuisance conditions.
45. The most significant odor control activity utilized by the Dairy is a freestall vacuum system. All cow feed and travel areas are vacuumed twice a day, and the slurry removed from those

areas is then deposited in a concrete-lined slurry pit where it awaits daily removal to an off-site location.

46. The vacuum system minimizes the nutrients and solids entering the RCSs or otherwise being exposed to the environment, thereby lessening the potential for odor.
47. The Dairy operates a two-stage RCS system in order to minimize any odor coming from the RCSs, and maintains settling basins to minimize nutrients and solids entering the RCSs.
48. Manure is scraped from the dry lots twice a week, tested, weighed, and hauled off-site.
49. There is no evidence that any odors that may be caused by the Dairy impede the normal use and enjoyment of the property of Protestant Smith.

#### **WATER QUALITY STANDARDS AND THE ANTI-DEGRADATION ANALYSIS**

50. Because the quality of Segment 1226 of the North Bosque River does not exceed fishable/swimmable quality, the ED conducted a Tier 1 antidegradation review to determine that existing uses, and water quality sufficient to protect those uses, will be maintained under the terms of the Draft Permit.
51. The Draft Permit will reduce the authorized discharge of pollutants from the Dairy as compared to the requirements of the existing Permit, and the CAFO rules prior to the 2004 revisions, because the Draft Permit limits wastewater and solid waste application rates based on the measured soil total phosphorus (TP) concentrations in the LMUs.
52. The Draft Permit requires that the existing RCSs be expanded in volume and operated in a manner that will reduce the potential for overflows to extremely infrequent 25-year, 10-day precipitation events.

53. The increase in the number of cattle would have no effect on the allowable discharge of pollutants because the pollutants that can be discharged are controlled by the allowable application rates for the available LMUs, which rates are based on measured soil TP concentrations, not manure output.
54. The Draft Permit decreases the allowable amounts of all pollutants that could be generated by the Dairy, including bacteria and oxygen-demanding substances, which will result in improvements of the existing water quality of the downstream waters.
55. Because any discharges from the Dairy would occur during high-flow events, it is very unlikely that the discharges would have any impact on DO in Green Creek because normally the low DO in a stream such as Green Creek occurs as a result of dry weather conditions.
56. The BMPs in the Draft Permit regarding application rates on LMUs, the vegetative buffer areas, and the prevention of overflows from RCSs will prevent degradation of the receiving waters.

#### **PATHOGENS AND BACTERIA**

57. The measured concentrations of bacteria in Green Creek exceed the applicable contact recreation standards, while pathogens in surface waters are not measured directly.
58. Bacteria and pathogen contamination may occur by a variety of sources, including direct contact by wildlife, livestock and domestic animals with a stream or waterway.
59. The BMPs in the Draft Permit regarding application rates on LMUs, the vegetative buffer areas, and the prevention of overflows from RCSs will serve to reduce bacteria discharges.
60. The Dairy's facility is fenced off from Green Creek, restricting all animal access to Green Creek from the Dairy.

61. Pursuant to the Draft Permit, the Dairy will ensure that vegetative buffers and filter strips of at least 136 feet exist between any LMU and a waterway, diminishing possible bacterial contamination that could occur from LMU runoff.
62. The management measures for control of phosphorus loading will have some corollary effect on reducing bacteria loading, since the nonpoint source nutrient and bacteria loads largely originate from the same sites and materials and are transported via the same processes and pathways.
63. Texas has not adopted any numerical or narrative criteria for the regulation of pathogens.

#### **PHOSPHORUS PRODUCTION**

64. The estimated total phosphorus loadings will increase from 377 to 525 pounds per day (lb./day) by the addition of 1,000 head of cattle.
65. Utilizing a slurry analysis of the manure from the freestall barns and the measured manure volume of 18 gallons per cow per day for the existing 2,000 cows, the yield would be 330 pounds of plant-available phosphorus, which is less than the estimated total phosphorus loading.
66. The calculations of the volume and phosphorus concentration of the manure account for the manure generated at the three cattle locations: the open lot pens, the freestall barns, and the milking parlor.
67. The NMP accurately sets forth the criteria regarding the amount of phosphorus in the soil, crop uptakes for phosphorus and nitrogen, and recommended amounts of nitrogen and phosphorus to grow a particular crop to a particular yield.

## **SPECIAL CONDITIONS**

68. LMU No. 7 is located in the 100-year floodplain, but its location will have no influence on runoff into the surface waters because of the protective measures built into the Draft Permit to control runoff.
69. The Draft Permit incorporates the 30 TAC § 321.42(j)(1) requirements for third-party field contracts.

## **II. CONCLUSIONS OF LAW**

1. The Commission has jurisdiction over permits for Concentrated Animal Feeding Operation (CAFO) pursuant to TEX. WATER CODE ANN. ch. 26 and 30 TEX. ADMIN. CODE (TAC) ch. 321.
2. SOAH has the authority to conduct evidentiary hearings and prepare Proposals for Decision on contested matters referred by the Commission pursuant to TEX. GOV'T CODE ANN. § 2003.047.
3. The Dairy has the burden of proof by a preponderance of the evidence to show that the expansion of the dairy CAFO will comply with applicable statutes and rules regarding CAFOs.
4. The proposed expansion of the facility would not constitute either a "new source" or "new discharger" under federal law and meets the requirements of 40 CFR § 122.4(i).
5. The proposed amended TPDES Permit No. WQ0003197000 is consistent with the TDML for the North Bosque River watershed.
6. The Dairy's compliance history does not warrant denial of the Draft Permit.

7. The proposed amended TPDES Permit No. WQ0003197000 complies with applicable odor requirements.
8. The proposed amended TPDES Permit No. WQ0003197000 is protective of downstream uses and complies with applicable water quality standards.
9. An anti-degradation analysis was performed for the expanded facility, properly addressed the impact on the quality of the receiving waters, and showed that the proposed amended TPDES Permit No. WQ0003197000 would not violate the anti-degradation requirements in TCEQ rules and Texas statutes.
10. The proposed amended TPDES Permit No. WQ0003197000 includes adequate requirements to control pathogens and bacteria in compliance with applicable rules and regulations.
11. The proposed amended TPDES Permit No. WQ0003197000 correctly accounts for the amount of phosphorus that will be produced by the permitted number of animals at the Dairy.
12. Site-specific factors do not require additional special conditions in the proposed amended TPDES Permit No. WQ0003197000 relating to waste management practices.
13. Based on the above Findings of Fact and Conclusion of Law, the application of Dairy for an amendment to TPDES Permit No. WQ0003197000 complies with the requirements of 30 TAC ch. 321, and should be approved.
14. In accordance with 30 TAC § 50.117, the Commission issues this Order and the attached permit as its single decision on the permit amendment application. Information in the agency record of this matter, which includes evidence admitted at the hearing and part of the evidentiary record, document the Executive Director's review of the permit amendment application, including that part not subject to a contested case hearing, and establishes that

the terms of the attached permit (Exhibit A) are appropriate and satisfy all applicable federal and state requirements.

**NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IN ACCORDANCE WITH THESE FINDINGS OF FACT AND CONCLUSIONS OF LAW, THAT:**

1. In accordance with 30 TAC § 50.117, the Commission issues this Order amending TPDES Permit No. WQ0003197000 granted to Hidden View Dairy, as its single decision on the permit application.
2. The Commission adopts the Executive Director's Response to Public Comment in accordance with 30 TAC § 50.117. Also in accordance with Section 50.117, the Commission issues this Order and the attached permit (Exhibit A) as its single decision on the permit amendment application. Information in the agency record of this matter, which includes evidence admitted at the hearing and part of the evidentiary record, document the Executive Director's review of the permit amendment application, including that part not subject to a contested case hearing, and establishes that the terms of the attached permit are appropriate and satisfy all applicable federal and state requirements.
3. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied.
4. The effective date of this Order is the date the Order is final, as provided by TEX. GOV'T CODE ANN. § 2001.144 and 30 TAC § 80.273.
5. The Commission's Chief Clerk shall forward a copy of this Order to all parties.

6. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any provision shall not affect the validity of the remaining portions of this Order.

**ISSUED:**

**TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY**

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**Buddy Garcia, Chairman  
For the Commission**