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2007 AUG 13 PM 4:37

CHIEF CLERKS OFFICE

August 13, 2007

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

Via hand-delivery and facsimile

**Re: Application by Hidden View Dairy for TPDES Permit No. WQ03197.
TCEQ Docket No. 2007-0831-AGR**

Dear Ms. Castañuela,

Please find enclosed for filing an original and eleven copies of the **Lone Star Chapter of the Sierra Club and Clean Water Action's Reply to Responses to Hearing Requests** in the above-referenced matter.

If you have any questions please call.

Sincerely,



Eric Allmon
LOWERRE & FREDERICK

Enclosures

cc: Service List

TCEQ DOCKET NO. 2007-0831-AGR

2007 AUG 13 PM 4: 37

IN THE MATTER OF THE
APPLICATION OF HIDDEN VIEW
DAIRY FOR TCEQ WATER QUALITY
PERMIT NO. 03197

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BEFORE THE TEXAS
COMMISSION ON
ENVIRONMENTAL QUALITY

CHIEF CLERKS OFFICE

**LONE STAR CHAPTER OF THE SIERRA CLUB AND CLEAN WATER
ACTION'S REPLY TO RESPONSES TO HEARING REQUESTS**

I. Introduction

Hidden View Dairy ("Applicant") submitted an application for a major amendment to Texas Pollution Discharge Elimination System Permit No. WQ0003197000 in January of 2004, prior to significant revisions to the TCEQ rules governing Concentrated Animal Feeding Operations (CAFOs) effective in July of 2004 to implement new Environmental Protection Agency (EPA) requirements that all CAFOs be permitted. These new rules are applicable to this permit application, and this will be the first CAFO individual permit to be considered during a contested case hearing under the new rules.

Notice of the Executive Director's (ED) draft permit was published December 19 of 2006. In response to this notice, the Lone Star Chapter of the Sierra Club (the "Club") filed comments and a hearing request on January 18, 2007. At that time, the Club noted that several nearby members would be affected. The ED filed a response to comments on April 20, 2007. Within 30 days of the date of that response, both the Club and Clean Water Action (CWA) (collectively "Requesters") filed a hearing request regarding the application.

Throughout the process, the Club has noted that it has several members that would be affected. These include a nearby member with adjacent property, a nearby

downstream landowner, members who own property adjacent to land where the permit would authorize off-site application fields, and persons who drink water from Lake Waco, and recreate thereon. Until recently, the Club has declined to release the name of its member that is also an adjacent property owner out of respect for the wishes of that member. As indicated below, the Club has recently obtained permission to release this person's identity. The Club will note that the purpose of a reply is to offer requesters to provide this type of supplemental information to address concerns raised by responses to the request.

The Club strongly maintains that it has several members that are affected persons, not only its member that is an adjacent property owner. In response to the requests filed by the Club and CWA, other parties have asserted that members such as Donald Turner, who is the owner of downstream property approximately 5 miles from the proposed site, are too far away to be affected. Yet, no evidence whatsoever has been provided to support these assertions. As noted below, if the Commission will not grant the Requesters' hearing request at this time, the Club and CWA request a hearing on their hearing requests where they will be allowed to present evidence demonstrating that their members are affected, and respond to any evidence other parties may present to dispute this claim. Denial of this request would violate the process for the consideration of hearing requests that the Austin Court of Appeals has held to be necessary prior to the denial of a hearing request.

II. Right to Hearing

The immediate permit is issued under the authority of Texas Water Code Chapter 26. Regardless of any other consideration, a permit application is subject to a contested

case hearing if the new permit will either (1) increase significantly the quantity of waste authorized to be discharged; or (2) change materially the pattern or place of discharge.¹ The Commission is also called upon to consider whether the activities to be authorized by the amended permit will maintain or improve the quality of waste authorized to be discharged,² and hold a hearing if it finds that the quality of the waste discharged will not be maintained.

No party disputes that the permit amendment will significantly increase the quantity of waste authorized to be discharged. Applicant has itself noted that the volumetric capacity of the retention control structures will be increased by over 50%.³ Since the permit authorizes the discharge of the contents of these structures during a rainfall event, this volumetric increase of the quantity of water within the structures increases the quantity of wastewater permitted to be discharged. While Applicant claims that the *quality* of the waste will be maintained, Applicant's brief has not disputed that the *quantity* of the authorized discharge from the retention control structures has been increased.

Applicant claims that meeting the technology-based standard for retention control structure design means that only exceptional chronic or catastrophic events will cause a discharge. The EPA has noted the fallacy of this argument:

It is a common misconception that the CAFO technology regulations at 40 CFR 412 authorize overflows from CAFO holding ponds only when caused by a 25 year, 24 hour, or greater, rainfall event. That is not the case. Those regulations require holding ponds to be built to a certain size (to hold all manure, litter, and process wastewater including the runoff and direct precipitation from a 25 year, 24 hour rainfall event) and to be properly operated and maintained. If these requirements are met, any

¹ TEX. WATER CODE § 26.028(d)(1).

² TEX. WATER CODE § 26.028(d)(2).

³ Applicant's Response at p. 3.

rainfall, either chronic buildup or a single catastrophic, which causes an overflow from holding ponds is allowed by the technology regulation. These regulations do not specify the number or frequency of allowed overflows, nor do they place restrictions on the pollutant loadings in the overflows. In some areas, the impact of the overflows is compounded by having a substantial number of CAFOs located in close proximity in a watershed. An example is the 105 dairies located in the North Bosque River watershed in Texas.⁴

This authorization of discharges during a heavy rainfall event prevents TCEQ from considering the permit a “no discharge” permit. Furthermore, the status of confined animal feeding operations as statutorily designated “point sources” under the Federal Clean Water Act prevents the TCEQ from considering the immediate permit to be a “no discharge” permit.⁵

Furthermore, the amended permit also alters the pattern and place of discharge in ways other than increasing the discharge from the retention control structures. While the new permit may not authorize additional on-site land management units, the new permit does increase in the amount of acreage that may be used as off-site application fields. This is an increase in the pattern of discharge.

Applicant’s brief indicates that so long as the commission finds that the amended permit will maintain or improve the quality of waste discharge, no right to a contested case hearing exists.⁶ While requestors believe that the amended permit has not been shown to maintain or improve the quality of the discharge, they also note that Applicant’s position on this question is wrong as a matter of law. No matter what the Commission finds to be the case with regard to whether the new permit will improve or maintain the

⁴ March 18, 2003 Memorandum from Paulette Johnsey, Chief, Region 6 Permits Section, Kenneth Huffman, & Paul Kasper to Jack Furguson, Region 6 Chief, NPDES Permits Branch. (Attachment A to this brief), at p. 2.

⁵ Federal Clean Water Act § 502(14) [33 U.S.C. § 1362(14)].

⁶ Applicant’s Response at p. 4.

quality of the waste discharged, if it is true that either the *quantity* of the discharge is changed, or that the *pattern* of the discharge is changed, the right to a hearing exists.⁷

For these reasons, Requestors agree with both the ED and the Office of the Public Interest Counsel (OPIC) that the right to a contested case hearing exists with regard to the immediate application.

III. Issues before Commission in Determining Whether to Grant a Contested Case Hearing

Applicant devotes significant portions of its brief to its arguments on the merits of the application, which are properly reserved for the hearing. So, it is important to remember the limited issues before the Commission when it considers a hearing request.

First, the Commission must determine if a requester has pled facts adequate to demonstrate that they are an affected person. Specifically, a requestor must plead facts showing that they hold a “justiciable interest” in the application. As confirmed by the Austin Court of Appeals in *Texas Natural Resource Conservation Commission, et al. v. Joe Grissom*, 17 S.W.3D 797 (Tex. App. – Austin 2000), a requestor need only plead facts showing that they will be *potentially* impacted by the proposed facility in a manner distinguishable from the general public. The extent of the impact is a matter left for the hearing on the permit itself, and is not a question properly before the Commission when considering a hearing request.⁸

While the Commission is to consider, based on the pleadings, the factors set forth in the rules, the Commission may not resolve disputes of fact that bear on a requestor’s status as an affected person without providing the requestor a meaningful opportunity to

⁷ Tex. Water Code § 26.028(d).

⁸ *Texas Natural Resource Conservation Commission, et al. v. Joe Grissom*, 17 S.W.3D 797 (Tex. App. – Austin 2000).

present evidence in support of their request in the form of an evidentiary hearing.⁹ Where an Applicant has factually disputed a claim made in a hearing request, the Commission may refer the request to the State Office of Administrative Hearings (SOAH) for consideration of those factual issues, just as the Commission did in the *Collins v. Texas Natural Resource Conservation Commission* case repeatedly cited by Applicant.¹⁰ Because it is not an evidentiary hearing, however, these factual disputes may not be properly resolved at an agenda meeting.¹¹ For this reason, the Commission is not permitted to simply agree with an Applicant on a factual dispute of a requestor's allegations and deny a hearing request on the basis of such a factual finding.

Upon finding a requestor to be affected, the Commission is then called upon to evaluate the issues raised to determine if those issues are ones of fact, disputed, relevant and material, and raised during the comment period.

IV. Relationship of Members to Requesting Association

An association must meet the requirements of 30 TAC § 55.205 in order to show itself to be an affected person. This regulation establishes a three-pronged test, requiring that the association show that (1) one or more members would have standing in their own right; (2) the interests that the organization seeks to protect are germane to the organization's purpose; and (3) neither the claim asserted, nor the relief sought, requires participation by the individual members.

In using this standard, TCEQ was explicitly adopting the standard enunciated by the Texas Supreme Court in *Texas Association of Business v. Texas Air Control Board*

⁹ *Grissom* at 805-806.

¹⁰ See *Collins v. Texas Natural Resource Conservation Commission*, 94 S.W.3d 876 at 881 (Tex. App. – Austin 2002)

¹¹ *Grissom* at 805-806

and Texas Water Commission (TAB).¹² With regard to the requirement that an organization show it has one or more members with standing, Justice Cornyn writing for the Texas Supreme Court specifically noted that this requirement "should not interpreted to impose unreasonable obstacles to associational standing requirement."¹³ Both the Club and CWA have noted that the purposes of their respective organizations include the preservation of water quality and the protection of their members' use and enjoyment of natural water resources. Further, the consideration of a permit application involves prospective relief, and thus does not require the individual participation of the member of the organization. Thus, the primary issue related to standing of these organizations is whether they each include a member that would have standing to request a hearing in their own right.

V. Specific Members Affected

A. Sierra Club Member and Adjacent Property Owner

Carol Robbins is an owner of an indivisible interest in property adjacent to the northern boundary of the facility, and is listed on the adjacent property owners map included with the application.¹⁴ She is also a member of the Lone Star Chapter of the Sierra Club.

Carol Robbins is concerned about the effect the new permit could have on the water quality of a stream and impoundment on the property she holds an interest in. The impoundment is a 30-acre Soil Conservation Service flood-prevention reservoir. The reservoir empties into Greens Creek, which flows into the North Bosque River about

¹² 24 Tex. Reg. 9015 at 9029 (Oct. 15, 1999); 852 S.W.2d 440, Tex. 1993.

¹³ *Texas Association of Business v. Texas Air Control Board and the Texas Water Commission*, 852 S.W.2d 440, 447 (Tex. 1993).

¹⁴ Attachment C.

eight miles away. The reservoir receives water from Bell Branch on the west edge of the property. Ms. Robbins is concerned that runoff from the expanded facility may move directly from the on-site land management units located adjacent to her property into Greens Creek during rainfall events, resulting in contamination of that stream. She is also concerned that the new permit would authorize the Applicant to locate off-site application fields upstream of the property she holds an interest in. She is concerned that waste or wastewater applied to these fields could potentially runoff from these areas into Bell Branch and then into the reservoir on her property, thereby contaminating the reservoir. Livestock drink out of both the reservoir and Greens Creek. An impact on water quality would impact the livestock raised on the property she holds an interest in. This would consequently impact the continued use of the property she holds an interest in to raise livestock. Ms. Robbins is concerned about the effect the expanded facility and its increased use of ground water could have on the water table. Ms. Robbins visits this property and is concerned that the increase in the number of cows at the facility could result in the production of nuisance odors that would impact the use and enjoyment of her property.

In addition to these concerns, Ms. Robbins also shares the other concerns that have been raised by the Club regarding the permitting process employed by TCEQ in issuing CAFO permits. As the first individual permit to be examined during the contested case hearing process in the Bosque watershed under the new CAFO rules, TCEQ's consideration of this application may establish precedent, and thus warrants particular attention. It is important that Applicants be required to designate the location of their off-site application fields, disclose the plans that will control operations at the site, and that

the permits issued effectively implement the plans that have been developed to address water quality concerns in the Bosque River such as the Total Maximum Daily Load implementation plans. These issues have a significant impact on the public's ability to participate in the process, and an impact on the protection of water quality in the Bosque watershed. Ms. Robbins believes that there is a need for TCEQ to address these issues.

B. Downstream Landowner

Donald Turner is a member of both the Sierra Club and Clean Water Action. Attachment D to this brief provides an approximate depiction of the location of his property road frontage relative to the proposed facility. Attachment E sets forth the description of his property as maintained by the Erath County Appraisal office. The full extent of his tract may extend closer to the dairy than the point indicated. Little Green Creek flows through his property approximately five miles downstream of flowing through the facility. Contamination entering the creek as the result of a discharge from the retention control structures would move onto his property during a heavy rainfall, as well as contamination from runoff from the land management units. Mr. Turner is impacted differently than the general public as a result of this direct downstream influence on his property.

While the responding parties have claimed that the intervening distance makes it unlikely that Mr. Turner's property would be affected, *no* evidence has been offered to demonstrate that Mr. Turner's property will not be impacted. It would be improper for the commission to make a finding of fact that the impact of the a discharge from the dairy is so attenuated in five miles as to result in no impact. The Facility's retention control structures, and treatment pond, have a total capacity of 25.9 million gallons. Retention

Control Structures 1 and 2, which are treated in a combined fashion for permitting purposes, have a capacity of 17.5 million gallons. Retention Control Structures No. 3 has a capacity of 4.4 million gallons, and RCS No. 4 has a capacity of 1.9 million gallons. During a heavy rainfall event, the permit authorizes that these structures discharge their contents, with no limitation on the quantity or quality of the water discharged.

While the EPA believes that discharges from CAFOs are underreported, the *reported* individual discharges from CAFOs in the Bosque watershed ranged from 155,000 gallons to 7 million gallons from 1993 to 1998.¹⁵ To consider only one contaminant, EPA monitoring shows that the concentration of fecal coliform in a CAFO discharge is 249 million colonies/100 ml.¹⁶ A discharge of only one million gallons of wastewater and sludge from the retention control structures at the facility is considered by the EPA to be low-volume estimate for a potential discharge,¹⁷ and is fully authorized by the proposed permit. With such a discharge, a stream flow of 200,000 cubic feet per second (cfs) would be required to dilute the discharge to a safe level of fecal coliform.¹⁸ For comparison, Onion Creek at Buda briefly reached a maximum flow of 1080 cfs on July 29, 2007 after significant heavy rainfalls that had expanded the creek to over 10 times its normal flow.¹⁹ Given Green Creek's small watershed, it is unrealistic to assume that Green Creek would contain the necessary flow of 200,000 cubic feet per second to attenuate the flow if even a discharge much smaller than the permitted discharge from the facility were to occur. Neither Applicant, nor OPIC, nor the Executive Director have provided any evidence to support a finding that a reasonably anticipated discharge, much

¹⁵ Attachment A, p. 2.

¹⁶ Attachment A, p. 2.

¹⁷ Attachment A, pp. 2-3.

¹⁸ Attachment A, p. 3.

¹⁹ Attachment F, Lower Colorado River Authority streamflow data.

less the authorized discharge, from the proposed facility will not have severe impacts five miles downstream. If any party wishes to challenge that such an impact will occur, CWA and the Sierra Club request a preliminary hearing for an ALJ to evaluate the evidence of the parties to make a factual determination of whether there is the potential for a discharge from the proposed facility to impact Mr. Turner's property. If the requesters' hearing requests are not granted, denial of this request for a hearing on CWA and Sierra Club's affected person status would constitute a violation of the process required by the Austin Court of Appeals in *Grissom*.

C. Sierra Club and CWA Members Adjacent to Potential Off-Site Application

Fields

As noted in the Club's request, Boyd Waggoner is a member of the Sierra Club and owns over 1000 acres in rural Erath County. Attachment G provides the county deed records setting forth the location of these properties. Donald Turner is a member of the Sierra Club and Clean Water Action. Attachment D depicts the location of his property within 6 miles downstream of the proposed facility. The proposed permit authorizes the location of off-site waste application fields adjacent to the property owned by these individuals.

In response to the hearing requests of the Club and CWA, the ED, OPIC and Applicant have alleged that neither Mr. Waggoner, nor Mr. Boyd, can be considered affected persons because they cannot identify the precise location of the waste application fields relative to their property. **Applicant refuses to disclose the location of these fields.** OPIC complains that there is uncertainty regarding the location of the fields adjacent to Mr. Boyd and Mr. Waggoner's property. **This uncertainty is created by**

Applicant. The position taken in the responses allows an applicant to hide the ball, denying persons who are going to have application fields located adjacent to their property any notice that this will happen, and then to impose on those persons the impacts that would undoubtedly have qualified them as affected persons. If Applicant wishes to narrow the scope of persons who can request a hearing based on their proximity to off-site application fields, Applicant has a simple solution – disclose the location of these fields. As the Applicant is the source of this uncertainty, Applicant should be faced with the consequences of such uncertainty.

Furthermore, TCEQ has always looked to what is *authorized* by a permit in evaluating a permit, and in determining if a person is affected. If an applicant is authorized to perform an activity pursuant to a permit, TCEQ has never taken the position that it will ignore the impacts of that activity on a person simply because Applicant says it may not exercise that authorization. Yet, that is the position that the responses ask the Commission to adopt. It *is certain* that the location of application fields adjacent to Mr. Boyd's or Mr. Turner's property *is authorized* by the permit. No party disputes this fact. The potential for these authorized application fields to impact the properties owned by Mr. Turner and Mr. Waggoner requires that they be found to be affected persons.

Applicant makes the odd argument that any person who conducts domestic and livestock activities on their property is barred from being considered affected by a CAFO. Requestors can find no basis in the law for a conclusion that a person forfeits their ability to protect the use and enjoyment of their property merely because they choose to conduct small livestock operations on that property. Moreover, applicant's conclusion is based entirely on an assumption that odor is the only impact of concern. Mr. Turner is entitled

to the aesthetic enjoyment of Green Creek as it flows by his property, and as a riparian landowner is entitled to make use of this water for domestic and livestock purposes. This enjoyment is unquestionably impacted by the potential for algal blooms or other contamination of the creek that could result from discharges from Applicant's facility. The use of this water is also impacted by the potential for high levels of fecal coliform and dissolved solids that may enter the water as a result of a discharge from Applicant's facility.

While the Club believes it was clear in their original request, both Boyd Waggoner and Donald Turner are members of the Lone Star Chapter of the Sierra Club. As noted, Donald Turner is also a member of Clean Water Action. Attached to this brief are the Erath County Appraisal District descriptions of the location of their properties.²⁰

D. Users of Lake Waco

Both CWA and the Sierra Club have members that live in the City of Waco, who drink water that is from Lake Waco, and that recreate in Lake Waco. Clean Water Action

Members include:

Larry E. Kolcan Jr.,
2617 Cole Ave #13
Waco, TX 76707

and

Oscar N. Boleman
66 Daughtrey Ave #801
Waco, TX 76206

Both of these individuals drink water provided by the City of Waco from Lake Waco, and recreate on Lake Waco. Lake Waco is contaminated by runoff from upstream dairies,

²⁰ Attachments E & G.

including dairies in the North Bosque River Watershed such as the Hidden View Dairy. The proposed dairy expansion will contribute to this contamination of Lake Waco, impacting the use of Lake Waco for recreational purposes by these persons, and impacting the ability of these persons to use water from Lake Waco for drinking purposes.

VI. Issues for Referral

With some exceptions, CWA and the Club generally agree with the issues recommended for referral by the Executive Director and OPIC.

CWA and the Club disagree with the Executive Director that a consideration of impacts from bacteria contamination, and whether this will result in a violation of downstream water quality standards for bacteria, is not relevant. While the Green Creek portion of Segment 1226 is not impaired for bacteria, downstream portions of Segment 1226 are impaired for bacteria.²¹ Moreover, the protection of a water body against a potential violation of water quality standards as a result of the permitting of a facility is relevant without regard to whether a water body is already in violation of those standards.

The ED argues that certain technical questions raised by the Club and CWA are not referable, but instead questions of law and policy. However, questions such as the remedial actions needed for high-phosphorus fields, sludge volume measurement, and nutrient management plan sampling each go towards whether or not the permit is adequately protective of water quality, and will prevent a violation of water quality standards. The regulations establish a minimum floor, but the individual permitting process is intended to evaluate the circumstances at a particular facility, and what requirements are needed at that facility. Thus, the mere fact that a given permit provision

²¹ Attachment H.

implements the minimum that the rules allow a permit to contain does not prevent protestants from demonstrating in a particular case that more stringent requirements are needed. This presents a question of fact, not law. Requesters believe that each of these issues are subsumed in other issues recommended for referral by the ED, but Requesters believe it should still be clear that an ALJ is not prevented from considering these flaws in the draft permit as issues of fact during the hearing.

VII. Duration of Hearing

This matter raises numerous, technically complex issues. This is also the first individual permit proposed to be issued under the new CAFO rules that will be considered in a contested case hearing, thus presenting a case of first impression on several issues. Due to this complexity of both the factual issues involved, and the need to fully brief the laws and policies involved, Requesters request ask for a hearing length of 12 months.

Considering that discovery alone is difficult to accomplish in less than two months, and that ALJs usually reserve two months of the schedule to write their proposal for decision, Applicant's recommendation of a four month hearing is entirely unrealistic. OPIC's recommendation of six months fails to account for the nature of this case as the first application of a new regulatory scheme, and as the first individual permit to be issued under the TMDL implementation plan for soluble reactive phosphorus. With a discovery period of two months, and a period of two months for the ALJ to author his or her decision, OPIC's schedule leaves only two months for the parties to: (1) evaluate the discovery material, (2) perform an analysis, (3) file Applicant's pre-filed, (3) allow Protestant's to evaluate Applicant's pre-filed, (4) allow Protestant's to develop and file

their pre-filed evidence, (5) allow the parties to evaluate the direct cases in preparation for the hearing on the merits, (6) conduct the hearing on the merits; (7) obtain a transcript; (8) write closing arguments; *and* (9) write replies to closing arguments. It is simply unrealistic to expect the parties to meaningfully complete these nine (9) activities in a two month span.

VIII. Prayer

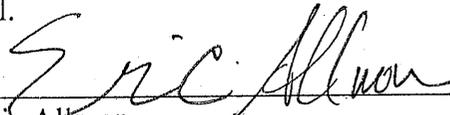
For the reasons set forth above, the Club and CWA respectfully request that the Commission grant their requests for a contested case hearing, hold a hearing on each issue addressed in their hearing request, and that the duration of the hearing be specified as 12 months from the preliminary hearing to the issuance of the proposal for decision.

Respectfully submitted,



Eric Allmon
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Lowerre & Frederick
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(512) 482-9345; (512) 482-9346 fax

By my signature below, I hereby certify that on the 13th day of August, 2007 an original and eleven copies of the foregoing **LONE STAR CHAPTER OF THE SIERRA CLUB AND CLEAN WATER ACTION'S REPLY TO RESPONSES TO HEARING REQUESTS** were filed with the TCEQ Chief Clerk, and copies were served to all parties listed below via hand delivery, facsimile transmission, or by deposit in the U.S. Mail.


Eric Allmon

For the Applicant:

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**LONE STAR CHAPTER OF THE SIERRA CLUB AND CLEAN WATER ACTION'S
REPLY TO RESPONSES TO HEARING REQUESTS**

EXHIBITS

Attachment A	March 18 th , 2003 Memorandum from Paulette Johnsey
Attachment B	July 16 th , 2002 Memorandum from Kenneth Huffman
Attachment C	Adjacent Landowners Information
Attachment D	Depiction of Donald Turner Property Relative to Hidden View Dairy
Attachment E	Donald Turner Property Locations
Attachment F	Lower Colorado River Authority Stream Flow Data
Attachment G	Boyd Waggoner Properties
Attachment H	Draft 2006 Texas 303(d) List (June 27, 2007) for Segment 1226 Impairments

ATTACHMENT A

MAR 18 2003

MEMORANDUM

SUBJECT: Addendum to July 16, 2002, Water Quality Memo from Kenneth Huffman to Jack Ferguson - An Analysis of Discharge Frequency of CAFO Manure/Wastewater Pond Overflows Caused by Chronic Rainfall Events and Reasonable Potential Evaluation

FROM: Paulette Johnsey, Chief, Permits Section (6WQ-PP) *Paulette Johnsey*
Kenneth Huffman (6WQ-PP) *Kenneth Huffman*
Paul Kaspar (6WQ-PP) *Paul Kaspar*

TO: Jack Ferguson
Chief, NPDES Permits Branch (6WQ-P)

In proposing reissuance of the now expired general permit, Region 6 must evaluate the pollutant concentration, volume and frequency of the discharges in order to assess potential water quality impacts to receiving streams. In the absence of data, the now expired 1993 permit assumed authorized overflows would not violate water quality standards. As is common in permitting new facilities or industries with no data set or previous permitting history, the permit required monitoring and reporting of the discharged pollutants to evaluate water quality impacts to determine if further limitations would be needed to control the discharge in order that water quality standards would not be violated.

As you are aware, in September, 1999, Region 6 requested submission of analytical data for all reported CAFO manure/wastewater holding pond overflows that were authorized by Region 6's 1993 CAFO general permit. For the approximately 300 CAFOs which applied for coverage under the 1993 general permit, data on 29 overflows was submitted in response to this data submission request. We have no reason to believe that these data do not represent, in both volume and characteristics, CAFO discharges in Region 6; and have solicited any existing, additional data from several sources, including permittees and industry representatives. Without data to the contrary, our reasonable potential evaluations in the July 16, 2002, memo and here have been based on the data available. A discussion of frequency, volume, and concentration are provided below along with some examples and comparisons to show how the pollutants compare with other discharges.

Frequency of Overflow

In addressing those potential impacts Region 6 evaluated the data set with regard to frequency of reported discharges. The self reported data from the 1993 permit showed only 14 discharges resulting from rainfall buildup greater than the storage pond capacity (chronic build-up), out of more than 300 permitted facilities. If, as the reported data set indicates, discharges are very infrequent from properly designed and maintained facilities, water quality based restrictions in

the permit allowing only 1 or 2 discharges in a 25 year period would not be burdensome to most facilities. Ninety five percent of all facilities did not report any discharge from 1993 to 1999, when the data was first requested, and most of those reporting a discharge had only one overflow. However, we believe the discharges are under reported and authorization of overflows in the permit must take into consideration that there is currently no restriction on the number of times a facility can discharge. Unrestricted, permitted overflows are not protective of water quality; and do not provide EPA or the public with any enforceable mechanism to prevent frequent discharges from violating water quality standards and are not consistent with the permitting regulations found at 40 CFR 122.44(d).

It is a common misconception that the CAFO technology regulations at 40 CFR 412 authorize overflows from CAFO holding ponds only when caused by a 25 year, 24 hour, or greater, rainfall event. That is not the case. Those regulations require holding ponds to be built to a certain size (to hold all manure, litter and process wastewater including the runoff and direct precipitation from a 25 year, 24 hour rainfall event) and to be properly operated and maintained. If these requirements are met, any rainfall, either chronic buildup or a single catastrophic, which causes an overflow from holding ponds is allowed by the technology regulation. These regulations do not specify the number or frequency of allowed overflows, nor do they place restrictions on the pollutant loadings in the overflows. In some areas, the impact of these overflows is compounded by having a substantial number of CAFOs located in close proximity in a watershed. An example is the 105 dairies located in the North Bosque River watershed in Texas. When heavy rainfalls, either chronic or catastrophic, cause a holding pond overflow from one CAFO, there is a high probability that rainfall will cause pond overflows from many of the adjacent CAFOs.

Volume of Pollutants Discharged in Overflows

As we explained in the July 16, 2002, memo the concentrations of the discharged pollutants are very high and clearly violate state standards which must be met at the discharge point i.e., without the benefit of dilution from the receiving water (Fecal Coliform) and likely violate the other standards instream.

<u>Overflow Pollutants</u>	<u>99th Percentile Concentrations</u>
BOD5	2393 mg/l
Ammonia Nitrogen	1467 mg/l
Fecal coliform	249 million colonies/100 ml

Considering the previously discussed pollutant concentrations and the reported volumes of overflows discharged, considerable dilution would be needed to protect water quality standards. The volume of the overflows caused by chronic rainfalls in this data set ranged from 155,000 to 7 million gallons and generally occurred over a day or less. A look at the receiving stream flow necessary for these overflows to meet a water quality standard which is required by be met at the edge of the instream mixing zone shows the significant impact these overflows can have. As an example, the fecal coliform standard in most Region 6 states requires no more than 200 colonics/100 ml to be met at the edge of the mixing zone. Assuming only one pond overflow of

1 million gallons in a day, this means the receiving stream would have to have a flow of about 200,000 cfs. Compare this with the peak stream flows in a number of the larger rivers in Region 6 for the period 1980 to 2000:

Rio Grande at Albuquerque, New Mexico = 10,000 cfs

San Juan River at Farmington, New Mexico = 12,000 cfs

Beaver River near Guymon, Oklahoma (in the Oklahoma Panhandle) = 55,400 cfs

Arkansas River near Ponca City, Oklahoma = 40,000 cfs

Arkansas river at Tulsa, Oklahoma = 310,000 cfs

Cimarron River near Guthrie, Oklahoma = 120,000 cfs

Illinois River at Tahlequah, Oklahoma = 65,000 cfs

Canadian river at Bridgeport, Oklahoma = 85,000 cfs

Canadian River at Canadian, Texas = 18,000 cfs

Sabine River at Wills Point, Texas = 21,000 cfs

Neches River near Diboll, Texas = 42,000 cfs

Trinity River at Trinidad, Texas = 98,000 cfs

Concentration of Pollutants Discharged in Overflows

As discussed above and in the July 16, 2002 memo the concentrations of pollutants reported was considerable, and significantly higher than originally considered by Region 6 in developing the 1993 permit. At the time, the permit writer considered the discharges to be roughly equivalent to that of raw sewage. The data shows that assumption to be in error. In order to illustrate how these discharges compare to the other "pollutant like" discharges, we have prepared a comparison between municipal sewage discharge and CAFO discharge characteristics based on information introduced in the July memo.

Discharge Type	Pollutant Concentration		
	BOD ₅ (mg/l)	NH ₃ (mg/l)	Fecal Coliform (colonies/100 ml)
Untreated CAFO (99 th Percentile)	2393	1467	249 million
Untreated Sewage (Typical Maximum)	300	50	35 million
Treated Sewage (Typical Permitted Maximum)	45	6	400

Volumes of reported CAFO pond overflows caused by chronic rainfall events ranged from 155,000 to 7,000,000 gallons, as previously noted. Assuming a one million gallon one day discharge from a CAFO holding pond and equating this discharge to that of raw sewage and treated sewage from a Publically Owned Treatment Works results in the following comparative volumes. To further put into perspective, we have shown how these pollutant loads would be equal to municipalities with the populations indicated below, using a per capita water usage of 100 gallons per day, the Agency standard.

Discharge Type	Volume/Population Equivalent to one (1) million gallons of Untreated CAFO Discharge for Identified Pollutants		
	BOD ₅	NH ₃	Fecal Coliform
Equivalent Volume of Untreated Sewage	8 million gallons	29 million gallons	7 million gallons
Equivalent Volume of Treated Sewage	53 million gallons	245 million gallons	622,500 million gallons
Population to Produce Equivalent Volume of Untreated Sewage	80,000 people	290,000 people	70,000 people
Population to Produce Equivalent Volume of Treated Sewage	530,000 people	2.45 million people	6,225 million people

Summary

The reported monitoring data gathered per the requirements of the 1993 permit, and the analysis of reasonable potential of the overflow discharges to cause or contribute to a violation of water quality standards in the July, 16, 2002 memo, clearly indicate that further permitting controls or limitations are needed. While the technical guidelines provide treatment technology minimums, they do not place limits on numbers of pond overflows. In our water quality analysis we have demonstrated why further restrictions are necessary to meet the water quality protections required in 40 CFR 122.44(d).

As discussed in the July memo, a statewide general permit must assure that water quality standards will not be violated by authorized discharges from any facility covered by that permit, including CAFOs located on small upstream tributaries. The water quality-based requirements in a general permit must, therefore, be sufficiently conservative to assure that no authorized discharges anywhere in the State will violate water quality standards. If a CAFO can demonstrate that the circumstances of overflows from the manure/wastewater pond is of such a nature that overflows caused by chronic rainfall events will not violate water quality standards, a CAFO has the option of applying for an individual permit. By obtaining an individual permit, the impact of CAFO pond overflows on water quality standards can be evaluated on a site-specific basis.

ATTACHMENT B



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

July 16, 2002

MEMORANDUM

SUBJECT: Water Quality Standards Violations Caused by Wet Weather CAFO Lagoon Overflows

FROM: Kenneth Huffman (6WQ-PP) (*Signed*)

TO: Jack Ferguson
Chief, NPDES Permits Branch (6WQ-P)

The previous Region 6 CAFO permit that was issued in 1993 required permittees to sample containment facility waste overflows for biological oxygen demand (BOD5), fecal coliform bacteria and ammonia nitrogen. Those data, summarized in Table 1, show the waste overflow from these facilities to have very high concentrations of BOD5, ammonia nitrogen and fecal coliform bacteria, especially during overflows caused by chronic rainfall events. BOD5 concentrations ranged from 260 to 2486 mg/l (with a 99th percentile = 2393 mg/l), ammonia nitrogen concentrations ranged from 61 to 1640 mg/l (99th percentile = 1467 mg/l), and fecal coliform concentrations ranged from 920,000 to 260 million colonies/100 ml (99th percentile = 249 million colonies/100 ml). The 99th percentile is used to characterize the data, since this percentile of effluent data is normally used to determine daily maximum effluent limits. Estimated discharge volumes ranged from 155,000 to 7 million gallons. As discussed below, waste overflows having such high pollutant concentrations will violate a number of New Mexico and Oklahoma water quality standards. Although this analysis was done specifically for the water quality standards of New Mexico and Oklahoma, a similar conclusion could be reached in other states. It should be noted that both EPA's current and proposed CAFO regulations address only the technology-based requirements for CAFOs. These regulations do not address the requirements necessary to protect State water quality standards.

Both New Mexico and Oklahoma have water quality standards for fecal coliform bacteria. In New Mexico the fecal water quality standard (single sample not to exceed) ranges from 200 colonies/100 ml to 2000 colonies/100 ml depending on the designated use of the water body, whether that water body is impaired for fecal, and the requirements of the New Mexico Water Quality Management Plan. In Oklahoma, the fecal water quality standard for waters designated for primary body contact recreation requires that no more than 10% of the samples during a 30 day period can exceed 400/100ml, which the State (Oklahoma Department of Environmental Quality) incorporates in permits as a not-to-exceed daily maximum limit of 400/100ml. Likewise, New Mexico requires the fecal standard to be applied end-of-pipe as a permit limit. The fecal data from the containment facility waste overflows (99th percentile of 249 million colonies/100 ml)

show that these fecal coliform water quality standards would obviously have been seriously violated as a result of all of these waste overflows caused by chronic rainfall events.

The high levels of ammonia nitrogen in the waste overflow from containment facilities caused by chronic rainfall events would violate the New Mexico Water Quality Standard for ammonia nitrogen for waters designated for fishery use. For warm water fishery designated waters, the acute ammonia nitrogen standard ranges from a high of 29 mg/l at a temperature of 0 C and pH of 6.5 to a low of 0.68 at 30 C and pH of 9.0. For cold water fisheries, the standard ranges from a high of 29 mg/l to a low of .48 mg/l at these temperatures and pH's. The New Mexico Water Quality Standards require the acute standards for ammonia nitrogen to be attained at the point of discharge. The ammonia nitrogen concentrations (99th percentile of 1467 mg/l) in the containment facility waste overflows caused by chronic rainfall events would clearly violate these water quality standards.

Although Oklahoma does not have specific numeric water quality standards for ammonia nitrogen, the high levels of ammonia nitrogen in the waste overflow caused by chronic rainfall events would violate the Oklahoma narrative acute toxicity water quality standard for waters having a designated use of fish and wildlife protection. 40 CFR 122.44(d)(1)(vi) requires the permitting authority, where a State has not established a water quality standard for a specific chemical pollutant which may violate a narrative water quality standard, to establish effluent limits using criteria, such as those from EPA's 304(a) criteria document, which will achieve the narrative water quality standard and protect designated uses. EPA's 1999 update of Ambient Water Quality Criteria for Ammonia (EPA-822-R-99-014, December, 1999) provides such information on the direct toxic effects of ammonia on freshwater fish species. The acute criteria from this document range from 48.8 mg/l ammonia nitrogen at a pH of 6.5 down to 19.9 mg/l at a pH of 7.5 and 3.2 mg/l at a pH of 8.5, since ammonia toxicity increases as the pH increases. The high levels of ammonia nitrogen (99th percentile of 1467 mg/l) in the containment facility waste overflow caused by chronic rainfall events would, therefore, cause a violation of the Oklahoma narrative acute toxicity standard.

Additionally, the high levels of nutrients, both nitrogen and phosphorus, in waste overflows from containment facilities caused by chronic rainfall events can contribute to violations of another Oklahoma water quality standard. Standard 785:45-5-19(b) and (c)(2) states that water must be free from noxious odors and tastes and, to protect this use, nutrients from point source discharges or other sources shall not cause excessive growth of periphyton, phytoplankton, or aquatic macrophyte communities (i.e., algae or aquatic plants) which impairs any existing or designated beneficial use. High levels of nutrients in waters used as drinking water supplies can stimulate algae growth, which can affect the taste and odor of drinking water.

The high BOD levels (99th percentile of 2393 mg/l), in addition to the high levels of nutrients, in the containment facility waste overflows indicate potential significant impacts on

dissolved oxygen in the receiving water body. These impacts on dissolved oxygen can have significant adverse impacts on aquatic organisms, as well as prey organisms.

All of the data in Table 1 were the result of waste overflows from containment facilities at dairies, and slaughter or feeder cattle operations. Manure-contaminated rainfall runoff can be a significant part of the waste water from dairy and cattle CAFO operations, since they typically have animals in open lot areas that can contain manure. Rainfall falling on these areas will become contaminated with the manure and will need to drain to the containment facilities, with the potential for waste overflows during heavy rain events if the containment facilities are not of sufficient holding capacity. Manure-contaminated rainfall runoff is of much less significance for other types of CAFOs, such as poultry and pork, since the animals in these operations are housed in enclosed structures. In addition to contaminated rainfall runoff, CAFO containment facilities may also have other highly contaminated wastes such as flushing or washdown water. As discussed above, the wastes in these containment facilities contain excessive amounts of nutrients, oxygen demanding organic matter and pathogens. In addition, these wastes contain pesticides, as well as antibiotics and hormones which are used in animal feeding operations and can appear in animal wastes, with the potential of having antibiotic resistant pathogens in these waste discharges. We do not, however, have data to evaluate what impact these latter pollutants may have on the receiving water bodies. For pork or poultry operations having wastewater containment facilities, overflows from such facilities would also be expected to cause violations of State water quality standards due to the high pollutant strength of the waste in those containment facilities.

40 CFR 122.44(d) requires NPDES permits to include any requirements, in addition to or more stringent than promulgated effluent limitations guidelines, which are necessary to achieve water quality standards established under section 303 of the Clean Water Act, including State narrative criteria for water quality. It should be noted that section 304 of the Clean Water Act requires that best available technology effluent limitations guidelines must consider the cost of achieving those limitations; whereas, for water quality standards, cost factors are taken into account by the State when determining the beneficial uses of the water body that the standards are designed to protect. The cost of achieving limits to protect State-established water quality standards is not, therefore, a factor to be considered. In order to comply with 40 CFR 122.44(d), the draft proposed Region 6 CAFO general NPDES permit for New Mexico and Oklahoma prohibits overflows of untreated CAFO wastes from containment facilities caused by chronic rainfall events. The draft permit allows existing CAFOs 3 years after the permit effective date to comply with this water quality-based requirement. During that 3 year period, the permit has the same requirements for containment facility overflows of untreated CAFO wastes that were in the expired Region 6 CAFO general permit. For CAFOs constructed after the proposed permit's effective date, the prohibition on overflows of untreated CAFO wastes caused by chronic rainfall events is effective immediately. These requirements, as well as the other requirements in the proposed permit, will also be protective of endangered species and their critical habitat.

Prohibiting waste overflows from containment facilities during chronic rainfall events is one way to address concerns over potential water quality standards violations. This can be achieved by increasing the containment facility's existing holding capacity, and/or by adding an additional holding lagoon(s). There may also be other equally effective ways of addressing this issue and, with this in mind, EPA Region 6 staff met with industry representatives several times over the past year to discuss our plans for reissuing the Region 6 CAFO general permit. In these discussions, EPA requested information and data on means, other than increasing holding lagoon capacity, to assure waste overflows from containment facilities do not violate water quality standards. Alternate treatment schemes discussed included treating the waste in the containment facility which might overflow during a chronic rainfall event to lower the concentration of pollutants of concern. For example, possible types of additional treatment might include constructed wetlands or anaerobic digesters. EPA will continue to request information and data on these or any other types of treatment that could be used, as well as the effectiveness of those treatment methods, to lower the concentration of the pollutants of concern to a level such that overflows during chronic rainfall events could be allowed, while assuring that water quality standards would not be violated by such overflows.

The above discussion shows that the high pollutant content of CAFO containment facility waste will cause the untreated overflows caused by chronic rainfall events to violate State water quality standards. If it can be demonstrated that the circumstances of overflows from a CAFO containment facility is of such a nature that overflows caused by chronic rainfall events will not violate State water quality standards, a CAFO may wish to apply for an individual NPDES permit instead of seeking coverage under the draft proposed general permit. By obtaining an individual permit, a CAFO's impact on water quality standards can be evaluated on a site-specific basis, instead of the state-wide basis which must be used in this general permit. A state-wide general permit must assure that water quality standards will not be violated by authorized discharges from any facility covered by that permit, including CAFOs located on small upstream tributaries. A general permit's water quality-based requirements must, therefore, be sufficiently conservative to assure that no authorized discharges anywhere in the State will violate water quality standards.

Table 1
CAFO Wastewater Holding Lagoon Overflow Data for authorized overflows
(Monitoring required by Region 6 1993 CAFO General Permit)

	Chronic Rainfall Event (1)			Catastrophic Rainfall Event		
	BOD5 mg/l	NH3-N mg/l	Fecal col/100ml	BOD5 mg/l	NH3-N mg/l	Fecal col/100ml
Texas	260	67	-	119	6.8	1,400,000
	1628	200	1,540,000	300	28	6,200,000
	1594	130	4,580,000	930	86	11,700,000
	1575	130	7,100,000	1125	81	9,600,000
	160	100	7,000,000	210	14	1,800,000
				130	20	6,000,000
				42	<2	120,000
				311	53	5,900,000
Oklahoma	363	61	8,400,000	1147	35	3,300,000
	2486	137	260 million	691	4.6	-
	-	-	161 million	10	.4	14,000
	341	144	5,300,000	-	62	4,400,000
	307	126	1,950,000	310	86	3,400,000
	1715	1640	4,300,000	145	-	-
	578	84	5,200,000	738	121	17,000,000
	591	122	920,000			
New Mexico	300	150	To Numerous to Count			

(1) For Chronic rainfall event overflows, 99th percentile value for BOD5 = 2393 mg/l, for ammonia nitrogen = 1467 mg/l and for fecal coliform = 249 million colonies/100 ml.

ATTACHMENT C

SECTION 2 ADJACENT LANDOWNERS INFORMATION

Table 2.1, entitled Adjacent Landowners List, identifies the adjacent landowners within 500 ft of the facility and any wastewater application areas owned and/or operated as part of the facility. The table corresponds to the properties identified in Figure 2.1 Adjacent Landowners Map. The base map and Geo ID numbers were provided by the Erath County Appraisal District. Landowner addresses and legal descriptions were obtained from the Erath County Appraisal District web database (current as of 10/10/2005).

Table 2.1: Adjacent Landowners List

Tract	Landowner Address	Geo ID/Legal Description	Acres
A	Betty E Robbins (3/4 undivided interest) Carol J Robbins (1/8 undivided interest) Judith J Robbins (1/8 undivided interest) 1011 CR 520 Dublin TX 76446	R.0242.00060	251
B	Norman and Marjorie Massey Estate c/o Marjorie Massey POA PO Box 1495 Stephenville TX 76401-0015	R.0391.00050	172.76
C	VLB c/o Whitehead 700150277 c/o Carl T and Lynne Whitehead 2316 CR 277 Dublin TX 76446	R.0590.00060	40
D	Robert Wayne Caudle 450 Hancock CT Fort Worth TX 76108	R.0590.00020	218.21
E	Pritchey Smith 233 Orange St. Neptune Beach FL 32233	R.0450.00100 R.0450.00100	505.886 1.0
F	Pam Alexander Allen 2158 CR 521 Dublin TX 76446	R.0450.00010 R.0494.00020	19.55 95.678
G	Francis B Stephen 4610 29th St Lubbock TX 79410	R.0160.00050	68.16
H	Suzanne G and Roger Nelson Mogonye PO Box 132 Elgin TX 78621	R.0160.00060	194.71
I	*The appraisal district could not determine the ownership of this tract of land.	T.0095.00020 Please see attached affidavit.	1.52

ATTACHMENT D



Hidden View Dairy *

914

6

6

914

6

Alexander

State Hwy 6

6

914

Donald Turner Property *

914

ATTACHMENT E

Donald Turner Property Locations

<i>Property ID:</i>	TURNER DONALD N &	<i>Legal</i>	Acres: 413.420, A0045
<i>Geographic</i>	VERDA K	<i>Description:</i>	BELDIN JOHN;, SHEDS; STG &
<i>ID:</i>	R000015363	<i>Property</i>	MH SITE, (LOUIE BRADSHAW)
	R.0045.00200.00.0	<i>Address:</i>	CR290 ~ 5645 ~
		<i>Map Number:</i>	17-15-4
<i>Owner Name:</i>	TURNER DONALD N & VERDA	<i>Legal</i>	Acres: 100.000, A0463
	K	<i>Description:</i>	KIMBALL E P;
<i>Property ID:</i>	R000043677	<i>Property</i>	CR265 ~ 0 ~
<i>Geographic</i>	R.0463.00009.00.0	<i>Address:</i>	
<i>ID:</i>		<i>Map Number:</i>	17-15-4

ATTACHMENT F

Onion Creek at Buda

* Disclaimer - Data displayed is automatically retrieved and is subject to revision.

Date - Time	Stage (feet)	Flow (cfs)
Aug 10 2007 12:56PM	4.40	76
Aug 10 2007 12:41PM	4.40	76
Aug 10 2007 12:25PM	4.40	76
Aug 10 2007 12:11PM	4.40	76
Aug 10 2007 11:56AM	4.40	76
Aug 10 2007 11:42AM	4.40	76
Aug 10 2007 11:27AM	4.40	76
Aug 10 2007 11:11AM	4.40	76
Aug 10 2007 10:56AM	4.41	78
Aug 10 2007 10:41AM	4.41	78
Aug 10 2007 10:26AM	4.41	78
Aug 10 2007 10:11AM	4.40	76
Aug 10 2007 9:56AM	4.40	76
Aug 10 2007 9:41AM	4.41	78
Aug 10 2007 9:26AM	4.41	78
Aug 10 2007 9:10AM	4.41	78
Aug 10 2007 8:56AM	4.41	78
Aug 10 2007 8:41AM	4.41	78
Aug 10 2007 8:26AM	4.41	78
Aug 10 2007 8:11AM	4.41	78
Aug 10 2007 7:56AM	4.41	78
Aug 10 2007 7:41AM	4.41	78
Aug 10 2007 7:26AM	4.41	78
Aug 10 2007 7:11AM	4.42	79
Aug 10 2007 6:56AM	4.41	78
Aug 10 2007 6:41AM	4.41	78
Aug 10 2007 6:26AM	4.41	78
Aug 10 2007 6:11AM	4.41	78
Aug 10 2007 5:56AM	4.41	78
Aug 10 2007 5:41AM	4.41	78
Aug 10 2007 5:26AM	4.42	79
Aug 10 2007 5:11AM	4.41	78
Aug 10 2007 4:56AM	4.41	78
Aug 10 2007 4:41AM	4.42	79
Aug 10 2007 4:26AM	4.42	79
Aug 10 2007 4:11AM	4.42	79
Aug 10 2007 3:56AM	4.42	79
Aug 10 2007 3:41AM	4.42	79
Aug 10 2007 3:26AM	4.42	79
Aug 10 2007 3:11AM	4.43	81
Aug 10 2007 2:56AM	4.42	79
Aug 10 2007 2:41AM	4.43	81
Aug 10 2007 2:26AM	4.42	79
Aug 10 2007 2:11AM	4.43	81
Aug 10 2007 1:56AM	4.43	81
Aug 10 2007 1:41AM	4.43	81
Aug 10 2007 1:26AM	4.43	81
Aug 10 2007 1:11AM	4.44	82
Aug 10 2007 12:56AM	4.44	82
Aug 10 2007 12:41AM	4.43	81
Aug 10 2007 12:26AM	4.44	82
Aug 10 2007 12:11AM	4.44	82

Aug 9 2007 11:56PM	4.44	82
Aug 9 2007 11:41PM	4.44	82
Aug 9 2007 11:26PM	4.44	82
Aug 9 2007 11:11PM	4.45	84
Aug 9 2007 10:56PM	4.45	84
Aug 9 2007 10:41PM	4.45	84
Aug 9 2007 10:26PM	4.45	84
Aug 9 2007 10:11PM	4.45	84
Aug 9 2007 9:56PM	4.45	84
Aug 9 2007 9:41PM	4.45	84
Aug 9 2007 9:26PM	4.45	84
Aug 9 2007 9:11PM	4.46	85
Aug 9 2007 8:56PM	4.45	84
Aug 9 2007 8:41PM	4.46	85
Aug 9 2007 8:26PM	4.45	84
Aug 9 2007 8:11PM	4.46	85
Aug 9 2007 7:56PM	4.46	85
Aug 9 2007 7:41PM	4.46	85
Aug 9 2007 7:26PM	4.46	85
Aug 9 2007 7:11PM	4.46	85
Aug 9 2007 6:56PM	4.46	85
Aug 9 2007 6:41PM	4.46	85
Aug 9 2007 6:26PM	4.47	87
Aug 9 2007 6:11PM	4.47	87
Aug 9 2007 5:56PM	4.47	87
Aug 9 2007 5:41PM	4.47	87
Aug 9 2007 5:26PM	4.47	87
Aug 9 2007 5:11PM	4.48	88
Aug 9 2007 4:56PM	4.47	87
Aug 9 2007 4:41PM	4.48	88
Aug 9 2007 4:26PM	4.48	88
Aug 9 2007 4:11PM	4.48	88
Aug 9 2007 3:56PM	4.48	88
Aug 9 2007 3:41PM	4.48	88
Aug 9 2007 3:26PM	4.48	88
Aug 9 2007 3:11PM	4.48	88
Aug 9 2007 2:56PM	4.49	90
Aug 9 2007 2:41PM	4.48	88
Aug 9 2007 2:26PM	4.48	88
Aug 9 2007 2:11PM	4.49	90
Aug 9 2007 1:56PM	4.48	88
Aug 9 2007 1:41PM	4.49	90
Aug 9 2007 1:26PM	4.49	90
Aug 9 2007 1:11PM	4.49	90
Aug 9 2007 12:56PM	4.49	90
Aug 9 2007 12:41PM	4.49	90
Aug 9 2007 12:26PM	4.49	90
Aug 9 2007 12:11PM	4.49	90
Aug 9 2007 11:56AM	4.49	90
Aug 9 2007 11:40AM	4.49	90
Aug 9 2007 11:26AM	4.49	90
Aug 9 2007 11:11AM	4.49	90
Aug 9 2007 10:56AM	4.49	90
Aug 9 2007 10:41AM	4.49	90
Aug 9 2007 10:26AM	4.50	91

Jul 29 2007 8:41PM	5.80	484
Jul 29 2007 8:26PM	5.80	484
Jul 29 2007 8:11PM	5.81	489
Jul 29 2007 7:55PM	5.82	494
Jul 29 2007 7:41PM	5.83	498
Jul 29 2007 7:26PM	5.84	502
Jul 29 2007 7:11PM	5.85	506
Jul 29 2007 6:56PM	5.87	514
Jul 29 2007 6:41PM	5.87	514
Jul 29 2007 6:26PM	5.89	522
Jul 29 2007 6:11PM	5.90	527
Jul 29 2007 5:56PM	5.91	531
Jul 29 2007 5:41PM	5.92	535
Jul 29 2007 5:26PM	5.93	539
Jul 29 2007 5:11PM	5.96	552
Jul 29 2007 4:55PM	5.98	561
Jul 29 2007 4:41PM	5.99	565
Jul 29 2007 4:26PM	6.00	570
Jul 29 2007 4:11PM	6.01	574
Jul 29 2007 3:56PM	6.02	578
Jul 29 2007 3:41PM	6.03	583
Jul 29 2007 3:26PM	6.05	592
Jul 29 2007 3:11PM	6.06	597
Jul 29 2007 2:56PM	6.06	597
Jul 29 2007 2:41PM	6.07	601
Jul 29 2007 2:26PM	6.06	597
Jul 29 2007 2:11PM	6.05	592
Jul 29 2007 1:56PM	6.04	587
Jul 29 2007 1:40PM	6.02	578
Jul 29 2007 1:26PM	6.00	570
Jul 29 2007 1:11PM	5.98	561
Jul 29 2007 12:56PM	5.97	556
Jul 29 2007 12:41PM	5.97	556
Jul 29 2007 12:26PM	5.98	561
Jul 29 2007 12:10PM	5.99	565
Jul 29 2007 11:56AM	6.01	574
Jul 29 2007 11:40AM	6.03	583
Jul 29 2007 11:26AM	6.06	597
Jul 29 2007 11:11AM	6.08	606
Jul 29 2007 10:56AM	6.11	620
Jul 29 2007 10:40AM	6.14	634
Jul 29 2007 10:26AM	6.17	649
Jul 29 2007 10:11AM	6.20	664
Jul 29 2007 9:56AM	6.23	679
Jul 29 2007 9:41AM	6.27	700
Jul 29 2007 9:25AM	6.30	715
Jul 29 2007 9:11AM	6.33	731
Jul 29 2007 8:56AM	6.37	752
Jul 29 2007 8:41AM	6.41	774
Jul 29 2007 8:26AM	6.44	791
Jul 29 2007 8:11AM	6.47	808
Jul 29 2007 7:56AM	6.50	825
Jul 29 2007 7:41AM	6.53	843
Jul 29 2007 7:26AM	6.55	855
Jul 29 2007 7:11AM	6.57	867

Jul 29 2007 6:56AM	6.58	873
Jul 29 2007 6:40AM	6.59	879
Jul 29 2007 6:25AM	6.62	898
Jul 29 2007 6:11AM	6.63	904
Jul 29 2007 5:56AM	6.65	917
Jul 29 2007 5:40AM	6.67	929
Jul 29 2007 5:25AM	6.70	949
Jul 29 2007 5:11AM	6.72	962
Jul 29 2007 4:56AM	6.76	988
Jul 29 2007 4:41AM	6.81	1018
Jul 29 2007 4:26AM	6.86	1047
Jul 29 2007 4:11AM	6.90	1070
Jul 29 2007 3:56AM	6.92	1082
Jul 29 2007 3:41AM	6.90	1070
Jul 29 2007 3:26AM	6.85	1041
Jul 29 2007 3:10AM	6.70	949
Jul 29 2007 2:56AM	6.45	797
Jul 29 2007 2:41AM	6.13	630
Jul 29 2007 2:26AM	5.79	480
Jul 29 2007 2:11AM	5.56	380
Jul 29 2007 1:56AM	5.45	336
Jul 29 2007 1:41AM	5.43	329
Jul 29 2007 1:26AM	5.43	329
Jul 29 2007 1:11AM	5.42	325
Jul 29 2007 12:56AM	5.42	325
Jul 29 2007 12:40AM	5.41	322
Jul 29 2007 12:25AM	5.41	322
Jul 29 2007 12:11AM	5.40	318
Jul 28 2007 11:56PM	5.40	318
Jul 28 2007 11:41PM	5.40	318
Jul 28 2007 11:26PM	5.39	314
Jul 28 2007 11:11PM	5.40	318
Jul 28 2007 10:56PM	5.39	314
Jul 28 2007 10:41PM	5.39	314
Jul 28 2007 10:26PM	5.40	318
Jul 28 2007 10:11PM	5.40	318
Jul 28 2007 9:56PM	5.40	318
Jul 28 2007 9:41PM	5.40	318
Jul 28 2007 9:25PM	5.41	322
Jul 28 2007 9:11PM	5.41	322
Jul 28 2007 8:56PM	5.41	322
Jul 28 2007 8:41PM	5.41	322
Jul 28 2007 8:25PM	5.41	322
Jul 28 2007 8:11PM	5.41	322
Jul 28 2007 7:55PM	5.41	322
Jul 28 2007 7:40PM	5.42	325
Jul 28 2007 7:26PM	5.41	322
Jul 28 2007 7:11PM	5.41	322
Jul 28 2007 6:55PM	5.41	322
Jul 28 2007 6:40PM	5.41	322
Jul 28 2007 6:26PM	5.41	322
Jul 28 2007 6:10PM	5.41	322
Jul 28 2007 5:55PM	5.41	322
Jul 28 2007 5:40PM	5.41	322
Jul 28 2007 5:25PM	5.41	322

Jul 28 2007 5:11PM	5.41	322
Jul 28 2007 4:55PM	5.41	322
Jul 28 2007 4:40PM	5.41	322
Jul 28 2007 4:25PM	5.42	325
Jul 28 2007 4:10PM	5.41	322
Jul 28 2007 3:55PM	5.42	325
Jul 28 2007 3:41PM	5.43	329
Jul 28 2007 3:25PM	5.42	325
Jul 28 2007 3:10PM	5.42	325
Jul 28 2007 2:55PM	5.42	325
Jul 28 2007 2:41PM	5.43	329
Jul 28 2007 2:26PM	5.43	329
Jul 28 2007 2:10PM	5.43	329
Jul 28 2007 1:55PM	5.43	329
Jul 28 2007 1:40PM	5.44	333
Jul 28 2007 1:25PM	5.44	333
Jul 28 2007 1:10PM	5.43	329
Jul 28 2007 12:56PM	5.44	333
Jul 28 2007 12:40PM	5.44	333
Jul 28 2007 12:25PM	5.44	333
Jul 28 2007 12:10PM	5.44	333
Jul 28 2007 11:55AM	5.44	333
Jul 28 2007 11:41AM	5.44	333
Jul 28 2007 11:25AM	5.44	333
Jul 28 2007 11:10AM	5.45	336
Jul 28 2007 10:55AM	5.45	336
Jul 28 2007 10:40AM	5.45	336
Jul 28 2007 10:26AM	5.45	336
Jul 28 2007 10:10AM	5.45	336
Jul 28 2007 9:56AM	5.45	336
Jul 28 2007 9:41AM	5.45	336
Jul 28 2007 9:25AM	5.45	336
Jul 28 2007 9:11AM	5.46	340
Jul 28 2007 8:56AM	5.45	336
Jul 28 2007 8:40AM	5.46	340
Jul 28 2007 8:25AM	5.46	340
Jul 28 2007 8:11AM	5.46	340
Jul 28 2007 7:55AM	5.46	340
Jul 28 2007 7:41AM	5.46	340
Jul 28 2007 7:25AM	5.47	344
Jul 28 2007 7:11AM	5.46	340
Jul 28 2007 6:55AM	5.46	340
Jul 28 2007 6:41AM	5.47	344
Jul 28 2007 6:26AM	5.47	344
Jul 28 2007 6:11AM	5.47	344
Jul 28 2007 5:55AM	5.47	344
Jul 28 2007 5:40AM	5.48	348
Jul 28 2007 5:25AM	5.48	348
Jul 28 2007 5:10AM	5.48	348
Jul 28 2007 4:55AM	5.48	348
Jul 28 2007 4:40AM	5.48	348
Jul 28 2007 4:26AM	5.48	348
Jul 28 2007 4:10AM	5.49	352
Jul 28 2007 3:55AM	5.49	352
Jul 28 2007 3:41AM	5.49	352

ATTACHMENT G

Boyd Waggoner Properties

<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000015077</p> <p><i>Geographic ID:</i> R.0037.00012.00.0</p>	<p><i>Legal Description:</i> Acres: 638.120, A0037 BRADLEY JOHN W</p> <p><i>Property Address:</i> PR1659 OFF CR175 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-1</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000015482</p> <p><i>Geographic ID:</i> R.0052.00030.00.0</p>	<p><i>Legal Description:</i> Acres: 58.620, A0052 BELL DANIEL;</p> <p><i>Property Address:</i> CR188 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-2</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000016035</p> <p><i>Geographic ID:</i> R.0079.00020.00.0</p>	<p><i>Legal Description:</i> Acres: 452.500, A0079 BOND EDWARD M;, BARN & SHED</p> <p><i>Property Address:</i> PR1125 OFF CR175 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-1</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000016036</p> <p><i>Geographic ID:</i> R.0079.00021.00.0</p>	<p><i>Legal Description:</i> Acres: 1.000, A0079 BOND EDWARD M;, HOUSE</p> <p><i>Property Address:</i> PR1125 OFF CR175 ~ 1792 ~</p> <p><i>Map Number:</i> 18-16-1</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000017071</p> <p><i>Geographic ID:</i> R.0153.00010.00.0</p>	<p><i>Legal Description:</i> Acres: 349.000, A0153 CONGER JAMES;</p> <p><i>Property Address:</i> PR1125 OFF CR175 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-1</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000017072</p> <p><i>Geographic ID:</i> R.0153.00011.00.0</p>	<p><i>Legal Description:</i> Acres: 4.000, A0153 CONGER JAMES;, & CABINS</p> <p><i>Property Address:</i> PR1125 OFF CR175 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-1</p>
<p><i>Owner Name:</i> WAGGONER BOYD</p> <p><i>Property ID:</i> R000018709</p> <p><i>Geographic ID:</i> R.0269.00020.00.0</p>	<p><i>Legal Description:</i> Acres: 237.477, A0269 FOSTER IRA H;</p> <p><i>Property Address:</i> CR188 ~ 0 ~</p> <p><i>Map Number:</i> 18-16-1</p>

Boyd Waggoner Property (Continued)

<i>Owner Name:</i> WAGGONER BOYD	<i>Legal Description:</i> Acres: 1.000, A0269 FOSTER IRA H;, HOUSE
<i>Property ID:</i> R000018713	<i>Property Address:</i> CR188 ~ 1786 ~
<i>Geographic ID:</i> R.0269.00040.00.0	<i>Map Number:</i> 18-16-1
<i>Owner Name:</i> WAGGONER BOYD	<i>Legal Description:</i> Acres: 100.000, A0269 FOSTER IRA H;
<i>Property ID:</i> R000018714	<i>Property Address:</i> CR188 ~ 1786 ~
<i>Geographic ID:</i> R.0269.00041.00.0	<i>Map Number:</i> 18-16-1
<i>Owner Name:</i> WAGGONER BOYD	<i>Legal Description:</i> Acres: 0.180, A0672 RICHARDSON WILLIAM D
<i>Property ID:</i> R000024841	<i>Property Address:</i> CR175 ~ 0 ~
<i>Geographic ID:</i> R.0672.00030.00.0	<i>Map Number:</i> 18-16-3

ATTACHMENT H

SegID: 1226B Green Creek (unclassified water body)

From the confluence of the North Bosque River south of Clairette in Erath County to the upstream perennial portion of the stream south of Stephenville in Erath County

<u>Area</u>	<u>Category</u>	<u>Year First Listed</u>
1226B_01 Entire water body depressed dissolved oxygen	5c	2006

SegID: 1226E Indian Creek (unclassified water body)

From the confluence with the North Bosque River in Erath County to the headwaters 3.5 miles east of Stephenville in Erath County

<u>Area</u>	<u>Category</u>	<u>Year First Listed</u>
1226E_01 Entire water body bacteria	5c	2002

SegID: 1226F Sims Creek (unclassified water body)

From the confluence with the North Bosque River in Erath County to the headwaters 6 miles southeast of Stephenville in Erath County

<u>Area</u>	<u>Category</u>	<u>Year First Listed</u>
1226F_01 Entire water body bacteria	5c	2002

SegID: 1226K Little Duffau Creek (unclassified water body)

From its confluence with Duffau Creek, upstream to its headwaters 2.4 miles south west of US 67 in Erath County

<u>Area</u>	<u>Category</u>	<u>Year First Listed</u>
1226K_01 entire water body bacteria	5c	2006