

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Zak Covar, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 9, 2015

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

Re: **North Texas Municipal Water District**
TPDES Permit No. WQ0004996000
TCEQ Docket No. 2014-1662-IWD

Dear Ms. Bohac,

Enclosed please find the original and seven (7) copies of the Executive Director's Response to Request for Hearing in the above-entitled matter.

Sincerely,

A handwritten signature in black ink that reads "Michael T. Parr II". The signature is written in a cursive style and is positioned above a horizontal line.

Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936

cc: Mailing List

Enclosure

TCEQ DOCKET NUMBER 2014-1662-IWD

APPLICATION by	§	BEFORE THE
NORTH TEXAS	§	TEXAS
MUNICIPAL WATER	§	COMMISSION
DISTRICT for	§	ON
TPDES Permit No.	§	ENVIRONMENTAL
WQ0004996000	§	QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUESTS

I. Introduction

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Hearing Requests (Response) on the application by North Texas Municipal Water District (Applicant) for new Texas Pollutant Discharge Elimination System (TPDES) permit, proposed permit No. WQ0004996000. The proposed permit would authorize the discharge of brine residuals (concentrate) from the desalination process from the proposed Leonard Water Treatment Plant (proposed facility) at a daily average flow not to exceed 9.3 million gallons per day (MGD) via Outfall 001. Jack Bradshaw, Harold Witcher, Jr., Julia Trigg-Crawford, Duane Gibbs, Mayfield McCraw, and Brenda and Curtis Schulz all submitted timely written requests for a contested case hearing (CCH).

Attached for Commission consideration are the following:

Attachment A - Technical Summary & Draft Permit
Attachment B - ED's Response to Comments (RTC)
Attachment C - ED's GIS Map

II. Description of the Facility

The proposed facility would be located 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard in Fannin County, Texas, and will perform conventional water treatment (that is, coagulation, filtration, etc.) followed by a desalination process, likely including a pretreatment operation. A portion of the conventionally treated water will be bypassed around the desalination process to be blended with desalinated water prior to distribution to the Applicant's treated water system. Currently, there are two options for the final desalination process,

electrodialysis reversal (EDR) and multi-stage reverse osmosis (RO). Because constituent loadings, generated from RO processes, are expected to be equal to or greater than those generated by the EDR processes, the RO process was used to develop the information related to the desalination concentrate quantity and quality required for this permit application. However, the performance of pilot studies will ultimately determine the best option.

Domestic wastewater will be routed either to the City of Leonard Publicly Owned Treatment Works or to an on-site sewage facility. All other waste generated at the plant, which may include clarifier blowdown, filter backwash, and backwash from maintenance and pretreatment membranes, is expected to be trucked to a permitted landfill or be disposed of in accordance with 30 TAC Chapter 312, Subchapter F.

If the Commission issues the proposed permit, the proposed discharge route for Outfall 001 is to an unnamed tributary; then to the Red River Below Lake Texoma in Segment No. 0202 of the Red River Basin. The TPDES program, which allows discharges of treated effluent into waters in the state, regulates facilities such as the one contemplated in this permitting action and requires the treated effluent to meet the requirements of the Texas Surface Water Quality Standards (TSWQS). The TSWQS is one of the TCEQ's primary mechanisms to protect surface water quality, groundwater quality, human health, aquatic life, the environment, and the designated uses of the receiving waters. Because the discharge point is into the unnamed tributary within 300 feet of Segment No. 0202, the characterization of the discharge is "direct to segment." The TSWQS Implementation Procedures (January 2003)ⁱ define the mixing zone for perennial streams, ditches, and rivers as 300 feet downstream from the point of discharge; therefore, because the discharge is considered direct to segment, the unnamed tributary was not assessed. The designated uses for Segment No. 0202 are primary contact recreation, public water supply, and high aquatic life use.

In accordance with 30 TAC § 307.5 of the TSWQS and the TSWQS implementation procedures ((IPs) January 2003)ⁱⁱ, an antidegradation review of the receiving waters was performed. The Tier 1 antidegradation review preliminarily determined that existing water quality uses would not be impaired by this permit action. Numerical and narrative criteria to protect existing uses would be maintained.

Additionally, because the Tier 1 review preliminarily determined that the stream reach assessed contains water bodies with exceptional, high, or intermediate aquatic life uses, a Tier 2 antidegradation review was performed. The Tier 2 review preliminarily determined that no significant degradation of water quality is expected in the Red River Below Lake Texoma, which was identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

III. Procedural Background

The TCEQ received the new TPDES application on June 11, 2012, and declared it Administratively Complete on July 18, 2012. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) on August 7, 2012, in the Fannin County Leader. The ED completed the technical review of the application on November 26, 2013, and prepared a draft permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) on February 11, 2014, in the Fannin County Leader. The Applicant published the Notice of Public Meeting on June 4, 2014 in the Fannin County Leader, and on July 17, 2014, at the Fannin County Multipurpose Complex in Bonham, Texas, the TCEQ held a public Meeting. The comment period for this application closed at the close of the public meeting on July 17, 2014, and the ED's Response to Comment was filed on April 17, 2015. This matter was originally set for Commission consideration on the February 4, 2015 Agenda meeting, however, due to settlement negotiations, the matter was rescheduled three times (01/07/15; 03/25/15; 07/27/15) before being scheduled for the October 7, 2015, Agenda meeting. Because this application was administratively complete on or after September 1, 1999, it is subject to procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

IV. Evaluation of Hearing Requests

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings. For those applications declared administratively complete on or after September 1, 1999, it established new

procedures for providing public notice and public comment, and for the Commission's consideration of hearing requests. This application was declared administratively complete on April 22, 2014, and therefore, is subject to the HB 801 requirements. The Commission implemented HB 801 by adopting procedural rules in Title 30 of the Texas Administrative Code (30 TAC) chapters 39, 50, and 55. The regulations governing requests for CCH are found at 30 TAC Chapter 55.

A. *Legal Authority to Respond to Hearing Requests*

“The Executive Director, the public interest counsel, and applicant may submit written responses to [hearing] requests”¹

Responses to hearing requests must specifically address:

- (a) whether the requestor is an affected person;
- (b) whether issues raised in the hearing request are disputed;
- (c) whether the dispute involves questions of fact or law;
- (d) whether the issues were raised during the public comment period;
- (e) whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment;
- (f) whether the issues are relevant and material to the decision on the application; and
- (g) a maximum expected duration for the contested case hearing.²

B. *Hearing Request Requirements*

In order for the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements.

A request for a contested case hearing by an affected person must be in writing, must be filed with the chief clerk within the time provided . . . and may not be based on an issue that was raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment.³

A hearing request must substantially comply with the following:

¹ 30 TAC §55.209(d).

² 30 TAC §55.209(e).

³ 30 TAC §55.201(c).

- (1) give the name, address, daytime telephone number, and where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;
- (2) identify the person's justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a manner not common to members of the general public;
- (3) request a contested case hearing
- (4) list all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request.
To facilitate the commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the executive director's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy; and
- (5) provide any other information specified in the public notice of application⁴

C. Requirement that Requester be an Affected Person

In order to grant a contested case hearing, the commission must determine that a requestor is an affected person.

- (a) For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest
- (b) Governmental entities, including local governments and public agencies with authority under state law over issues raised by the application may be considered affected persons
- (c) In determining whether a person is an affected person, all factors shall be considered, including, but not limited to, the following:
 - (1) whether the interest claimed is one protected by the law under which the application will be considered;
 - (2) distance restrictions or other limitations imposed by law on the affected interest;
 - (3) whether a reasonable relationship exists between the interest claimed and the activity regulated;

⁴ 30 TAC §55.201(d).

- (4) likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;
- (5) likely impact of the regulated activity on use of the impacted natural resource by the person; and
- (6) for governmental entities, their statutory authority over or interest in the issues relevant to the application⁵

D. Referral to the State Office of Administrative Hearings

“When the commission grants a request for a contested case hearing, the commission shall issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing.”⁶ “The commission may not refer an issue to SOAH for a contested case hearing unless the commission determines that the issue: (1) involves a disputed question of fact; (2) was raised during the public comment period; and (3) is relevant and material to the decision on the application.”⁷

V. Analysis of the Hearing Requests

The ED analyzed the hearing requests to determine whether they complied with Commission rules, who qualified as an affected person, what issues ought to be referred for a contested case hearing, and the appropriate length of the hearing.

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

- 1. Harold Witcher, Jr.** – Mr. Witcher timely filed a CCH request with the Office of the Chief Clerk on October 28, 2014. Mr. Witcher’s CCH request provided: 1) his name and address, 2) requested a CCH, and 3) raised relevant and material issues of fact during the comment period (i.e., whether the river water, containing the proposed discharge, would be harmful to area farmers’ crops if used for irrigation).

The ED recommends finding that Harold Witcher Jr. substantially complied with 30 TAC §§ 55.201(c) and (d).

- 2. Julia Trigg-Crawford** – Ms. Trigg-Crawford submitted a timely hearing request on March 26, 2014, during the comment period, that provided: 1) her name and address, 2) requested a contested case hearing, and 3) raised relevant and material issues of fact during the comment period. Specifically, whether the

⁵ 30 TAC § 55.203.

⁶ 30 TAC § 50.115(b).

⁷ 30 TAC § 50.115(c).

proposed discharge would increase the salinity of the Red River and whether the increased salinity would decrease the quality of the water Ms. Trigg-Crawford obtains through the Water Rights permit she holds).

The ED recommends finding that Julia Trigg-Crawford substantially complied with 30 TAC §§ 55.201(c) and (d).

3. Duane Gibbs – Mr. Gibbs submitted a timely hearing request on March 13, 2014, during the comment period, that provided: 1) his name and address, 2) requested a contested case hearing, and 3) raised relevant and material issues of fact during the comment period (i.e., whether the river water, containing the proposed discharge, would be harmful to area farmers' crops if used for irrigation).

The ED recommends finding that Duane Gibbs substantially complied with 30 TAC §§ 55.201(c) and (d).

4. Jack Bradshaw – Mr. Bradshaw submitted a timely hearing request on March 10, 2014, during the comment period, that provided: 1) his name and address, 2) requested a contested case hearing, and 3) raised relevant and material issues of fact during the comment period (i.e., whether the river water, containing the proposed discharge, would be harmful to his crops if used for irrigation).

The ED recommends finding that Jack Bradshaw substantially complied with 30 TAC §§ 55.201(c) and (d).

5. Brenda and Curtis Schulz (2) – Brenda and Curtis Schulz submitted timely hearing requests on February 12 and 26, 2014, during the comment period, and motions for reconsideration on October 29 and 31, 2014. The hearing requests provided: 1) their names and address, 2) requested a contested case hearing, and 3) raised relevant and material issues of fact during the comment period (i.e., whether the river water, containing the proposed discharge, would be harmful to their crops if used for irrigation).

The ED recommends finding that Brenda and Curtis Schulz substantially complied with 30 TAC §§ 55.201(c) and (d).

B. Whether the Requesters are Affected Persons

1. Harold Witcher Jr.'s hearing request failed to identify Mr. Witcher's personal justiciable interest affected by the application; nor did it include a brief written

statement explaining in plain language his location and distance relative to the facility, discharge point or discharge route. Lastly, the hearing request stated that Mr. Witcher works for a retailer that sells farming products to farmers and that if the farmers are impacted then he would also feel the impact, which fails to explain how and why Mr. Witcher would be personally affected by the proposed activity in a manner not common to members of the public. According to the GIS map developed by the ED's staff, the address provided in Mr. Witcher's CCH request indicates that Mr. Witcher does not reside along or own property along the Red River, and that his address is at a distance of more than five miles from the Red River. Mr. Witcher's address is neither downstream nor adjacent to the facility or discharge route. Mr. Witcher has not shown how he will be personally affected in a way not common to the general public.

The ED recommends that the Commission find that Harold Witcher Jr. is not an affected person under 30 TAC § 55.203.

2. Julia Trigg-Crawford's hearing request failed to identify Ms. Trigg-Crawford's personal justiciable interest affected by the application. While Ms. Trigg-Crawford's request stated she holds a water right for use in irrigating her farm (No. 3924), the request failed to include a brief written statement explaining, in plain language, her location and distance relative to the facility, discharge point or discharge route. Additionally, Ms. Trigg-Crawford's hearing request failed to explain how and why Ms. Trigg-Crawford would be personally affected by the proposed activity in a manner not common to members of the public. The GIS map prepared for this case indicates that Ms. Trigg-Crawford owns property along a tributary of the Red River a considerable distance downstream of the discharge point. Ms. Trigg-Crawford has not shown how she will be personally affected in a way not common to the general public.

The ED recommends that the Commission find that Julia Trigg-Crawford is not an affected person under 30 TAC § 55.203.

3. Duane Gibbs' hearing request failed to identify Mr. Gibbs' personal justiciable interest affected by the application; nor did it include a brief written statement explaining in plain language his location and distance relative to the facility,

discharge point or discharge route. Lastly, the hearing request failed to explain how and why Mr. Gibbs would be personally affected by the proposed activity in a manner not common to members of the public. Mr. Gibbs' hearing request and the GIS map prepared in this case indicates that Mr. Gibbs owns property along the Red River a considerable distance downstream of the discharge point. Mr. Gibbs has not shown how he will be personally affected in a way not common to the general public.

The ED recommends that the Commission find that Duane Gibbs is not an affected person under 30 TAC § 55.203.

4. Jack Bradshaw's hearing request failed to identify Mr. Bradshaw's personal justiciable interest affected by the application; nor did it include a brief written statement explaining in plain language his location and distance relative to the facility, discharge point or discharge route. Lastly, because the basis of request was on a possible future event (possible and future irrigation) the hearing request failed to explain how and why Mr. Bradshaw would be personally affected by the proposed activity in a manner not common to members of the public.

Additionally, the GIS map prepared in this case indicates that Mr. Bradshaw's property is more than ten miles downstream of the discharge location. Mr. Bradshaw has not shown how he will be personally affected in a way not common to the general public.

The ED recommends that the Commission find that Jack Bradshaw is not an affected person under 30 TAC § 55.203.

5. Brenda and Curtis Schultz's hearing requests failed to identify Mr. and Mrs. Schulz's personal justiciable interests affected by the application. While their requests included a brief written statement explaining in plain language their location and distance relative to the facility, discharge point or discharge route, the requests failed to explain how and why Mr. and Mrs. Schulz's would be personally affected by the proposed activity in a manner not common to members of the public. The GIS map prepared for this case indicates that Mr. and Mrs. Schulz own property more than ten miles downstream of the discharge

point. Mr. and Mrs. Schulz have not shown how they will be personally affected in a way not common to the general public.

The ED recommends that the Commission find that Brenda and Curtis Schulz are not an affected persons under 30 TAC § 55.203.

C. Whether the Issues are Referable to SOAH

In addition to recommending to the Commission those persons who qualify as affected persons, the ED analyzes issues raised in accordance with the regulatory criteria.

(a) Issues raised in the Hearing Request:

The Following issues were raised in the Hearing Requests:

1. Whether the increased salinity of the Red River downstream of the discharge point would be harmful to the crops being irrigated by the Red River.

(b) Issues of Fact:

If the Commission considers an issue to be one of fact, rather than an issue of law or policy, it is appropriate for referral to hearing if it meets all other applicable requirements.⁸ The following issues presented are issues of fact.

1. Whether the increased salinity of the Red River downstream of the discharge point would be harmful to the crops being irrigated by the Red River.

(c) Relevant and Material Issues:

To refer an issue to SOAH, the Commission must find that the issue is relevant and material to the Commission's decision to issue or deny a permit.⁹ Relevant and material issues are those governed by the substantive law under which the permit is to be issued.¹⁰ The following issues are relevant and material to decision on the application.

1. Whether the increased salinity of the Red River downstream of the discharge point would be harmful to the crops being irrigated by the Red River. **The ED's Response to Comment, Comment Nos. 1, 2, and 9, addressed this comment.**

⁸ 30 TAC §§ 55.201(c), (d)(4), and 55.211(c)(2)(A).

⁹ *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248-51 (1986) (discussing the standards applicable to reviewing motions for summary judgment the Court stated "[a]s to materiality, the substantive law will identify which facts are material ... it is the substantive law's identification of which facts are critical and which facts are irrelevant that governs").

¹⁰ *Id.*

(d) Issues recommended for Referral:

The ED recommends the following issues be referred to SOAH for a CCH.

1. Whether the increased salinity of the Red River downstream of the discharge point would be harmful to the crops being irrigated by the Red River.

VI. Requests for Reconsideration

Brenda and Curtis Shultz and Mayfield McGraw all filed Requests for Reconsideration (RFR). Mr. and Mrs. Schulz filed their RFR on 10/29/2014 and Mayfield McGraw filed two RFRs on 10/23/2014 and 10/27/2014.

All three RFRs assert that the ED should deny the Applicant's application because the proposed discharge would place more salt in the Red River and that they use the water from the Red River to irrigate their crops. Brenda and Curtis Shultz and Mayfield McGraw all raised issues in their RFRs about the ED's RTC. The Schultz took issue with Response 2, and that it refers to mean levels of salinity and does not account for averages on days with lower water flows. This issue is a fact issue that was raised during the comment period and was adequately addressed in the ED's RTC. Mr. and Mrs. Schulz's RFR did not raise any new fact issues; as such, the ED recommends that it be denied.

Mayfield McGraw took issue with all of the Responses in the ED's RTC. Ms. McGraw felt that ED's RTC included the technical reasons for the permit but did not address the concerns of the area's farmers. The issues raised in Ms. McGraw's RFR were fact issues raised during the comment period and adequately addressed in the ED's RTC. Ms. McGraw's RFR did not raise any new fact issues; as such, the ED recommends that it be denied.

The ED recommends the Commission deny all three RFRs.

VII. Executive Director's Recommendation

The ED recommends the following actions by the Commission:

1. Find that Harold Witcher Jr., Julia Trigg-Crawford, Duane Gibbs, Jack Bradshaw, and Brenda and Curtis Schultz are not Affected Persons under 30 TAC § 55.203.
2. Deny the CCH Requests of Harold Witcher Jr., Julia Trigg-Crawford, Duane Gibbs, Jack Bradshaw, and Brenda and Curtis Schultz

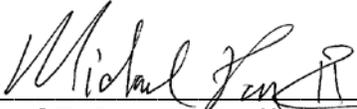
- 3.** If the Commission determines that any of the parties named above are affected persons, refer the identified issues above in sections **(d)(1)** to SOAH for a contested case hearing lasting no longer than six months from the date of referral.
- 4.** Deny the three RFRs filed on the application because they do not raise any new issues of fact.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E., Executive Director

Robert Martinez, Environmental Law
Division Director

By 

Michael T. Parr II, *Staff Attorney*

Environmental Law Division

State Bar No. 24062936

P.O. Box 13087, MC 173

Austin, Texas 78711-3087

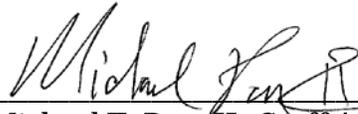
Telephone No. 512-239-0611

Facsimile No. 512-239-0606

REPRESENTING THE EXECUTIVE
DIRECTOR OF THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on September 9, 2015 the original and seven true and correct copies of the Executive Director's Response to Hearing Request on the application by North Texas Municipal Water District for new TPDES permit, proposed permit No. WQ0004996000 were filed with the Chief Clerk of the TCEQ and a copy was served to all persons listed on the attached mailing list via hand delivery, electronic delivery, inter-agency mail, or by deposit in the U.S. Mail.



Michael T. Parr II, *Staff Attorney*

Environmental Law Division

State Bar No. 24062936

i The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The review of the discharge route for this proposed permit was conducted prior to July 12, 2013 and was done consistent with the January 2003 Implementation Procedures.

ii The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The antidegradation review conducted on the application for this proposed permit was conducted prior to July 12, 2013 and was done consistent with the January 2003 Implementation Procedures.

MAILING LIST
North Texas Municipal Water District
DOCKET NO. 2014-1662-IWD; PERMIT NO. WQ0004996000

FOR THE APPLICANT:

Via electronic mail:

Brad B. Castleberry
Lloyd Gosselink Rochelle & Townsend, P.C.
816 Congress Ave., Suite 1900
Austin, Texas 78701
(512) 542-5905 FAX (512) 452-2325
bcastleberry@lglawfirm.com

FOR THE EXECUTIVE DIRECTOR

Via electronic mail:

Michael Parr, Staff Attorney
Texas Commission on Environmental Quality
Environmental Law Division, MC-173
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-0600
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Brian Christian, Director
Texas Commission on Environmental Quality
Environmental Assistance Division
Public Education Program, MC-108
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-4000
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FOR PUBLIC INTEREST COUNSEL:

Via electronic mail:

Vic Mcwherter, Public Interest Counsel
Texas Commission on Environmental Quality
Public Interest Counsel, MC-103
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-6363
Fax: (512) 239-6377

FOR ALTERNATIVE DISPUTE

RESOLUTION: Via electronic mail:

Kyle Lucas Texas Commission on Environmental
Quality Alternative Dispute Resolution, MC-222
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-4010 Fax: (512) 239-4015

FOR THE CHIEF CLERK:

Bridget C. Bohac
Texas Commission on Environmental Quality
Office of Chief Clerk, MC-105
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-3300
Fax: (512) 239-3311

PROTESTANT(S):

See attached list.

PROTESTANT(S)

Jack D. Bradshaw
Bradshaw Land & Livestock LLC
1761 N. 4258 Rd.
Grant, Oklahoma 74738-5003

Julia Trigg-Crawford
Red Arc Farm
690 County Road 37500
Sumner, Texas 75486

Duane Gibbs
6170 FM 2554
Ivanhoe, Texas 75447-3038

Mayfield McCraw
Hope Plantation Turf
3765 County Road 2135
Telephone, Texas 75488-3009

Brenda & Curtis L. Shulz
2840 E. 2158 Rd.
Grant, Oklahoma 74738-2510

Harold Dean Witcher Jr.
972 County Road 2705
Telephone, Texas 75488-6066

ATTACHMENT A



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

TPDES PERMIT NO. WQ0004996000
*[For TCEQ office use only -
EPA I.D. No. TX0133671]*

This is new TPDES Permit No.
WQ0004996000.

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

North Texas Municipal Water District

whose mailing address is

P.O. Box 2408
Wylie, Texas 75098

is authorized to treat and discharge wastes from the North Texas Municipal Water District Leonard Water Treatment Plant (SIC 4941)

located 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard, Fannin County, Texas 75452

via pipe to an unnamed tributary; thence to the Red River Below Lake Texoma in Segment No. 0202 of the Red River Basin

only according to effluent limitations, monitoring requirements and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight on December 1, 2017.

ISSUED DATE:

For the Commission

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR WATER QUALITY TPDES PERMIT FOR INDUSTRIAL WASTEWATER

TPDES Permit No. WQ0004996000

APPLICATION AND PRELIMINARY DECISION. North Texas Municipal Water District, P.O. Box 2408, Wylie, Texas 75098, which proposes to operate the North Texas Municipal Water District Leonard Water Treatment Plant, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004996000, to authorize the discharge of desalination concentrate at a daily average flow not to exceed 9,300,000 gallons per day. This application was received by the TCEQ on June 11, 2012.

The facility is located 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard, Fannin County, Texas 75452. The effluent is discharged to an unnamed tributary; thence to the Red River Below Lake Texoma in Segment No. 0202 of the Red River Basin. Because Segment No. 0202 is within 300 feet of the outfall, the discharge is considered direct to segment and the unnamed tributary is not assessed. The designated uses for Segment No. 0202 are contact recreation, public water supply, and high aquatic life use.

In accordance with 30 Texas Administrative Code (TAC) §307.5 and the TCEQ implementation procedures (January 2003) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the Red River Below Lake Texoma, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at the Bonham Public Library, 305 East 5th Street, Bonham, Texas. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For exact location refer to application. <http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=33.381388&lng=-96.276666&zoom=13&type=r>

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ

holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name; address; phone number; applicant's name and permit number; the location and distance of your property/activities relative to the facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are germane to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission will only grant a contested case hearing on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission will only grant a hearing on issues that were raised in timely filed comments that were not subsequently withdrawn.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at www.tceq.state.tx.us/about/comments.html within 30 days from the date of newspaper publication of this notice.

AGENCY CONTACTS AND INFORMATION. If you need more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040. General information about the TCEQ can be found at our web site at www.tceq.state.tx.us.

Further information may also be obtained from North Texas Municipal Water District at the address stated above or by calling Mr. Robert McCarthy at (972) 442-5405.

Issued:

AGENDA CAPTION FOR PERMIT NO. WQ0004996000

North Texas Municipal Water District, which proposes to operate the North Texas Municipal Water District Leonard Water Treatment Plant, has applied for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004996000, to authorize the discharge of desalination concentrate at a daily average flow not to exceed 9,300,000 gallons per day. The facility is located 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard, Fannin County, Texas 75452.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge desalination concentrate subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 9.3 million gallons per day (MGD). The daily maximum flow shall not exceed 18.6 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	9.3 MGD	18.6 MGD	N/A	Continuous	Meter
Total Suspended Solids	20	30	30	1/week	Grab
Total Dissolved Solids	Report	Report	N/A	1/month	Grab
Chloride	Report	Report	N/A	1/month	Grab
Sulfate	Report	Report	N/A	1/month	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/day by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: following the final treatment unit.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

The "daily discharge" determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (Fecal coliform, E. coli, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as $(\text{Flow, MGD} \times \text{Concentration, mg/L} \times 8.34)$.
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9 (b).
- b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise

specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be reported on an approved self-report form that is signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TWC Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time, and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
 - b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
 - c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
 - d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III

(excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- i. One hundred micrograms per liter (100 µg/L);
 - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- i. Five hundred micrograms per liter (500 µg/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Executive Director of the following:
- a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
 - c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at

any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any

limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy.

- a. Each permittee shall notify the executive director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);

- iii. the bankruptcy court in which the petition for bankruptcy was filed; and
- iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Land Application Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
- a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 149) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.
 - b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be

industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

- c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
- d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.
- e. The term “industrial solid waste management unit” means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

OTHER REQUIREMENTS

1. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 4 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 4 and the Enforcement Division (MC 224): None.
2. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge. Chronic toxic criteria apply at the edge of the mixing zone.
3. This permit does not authorize the discharge of domestic sewage. Domestic sewage shall either be routed to the City of Leonard Publicly-Owned Treatment Works (POTW) or to an on-site sewage facility.
4. The permittee is hereby placed on notice that this permit may be reviewed by the TCEQ after the completion of any new intensive water quality survey on Segment No. 0202 of the Red River Basin and any subsequent updating of the water quality model for Segment No. 0202, in order to determine if the limitations and conditions contained herein are consistent with any such revised model. The permit may be amended, pursuant to 30 TAC Section 305.62, as a result of such review.
5. Reporting requirements pursuant to 30 TAC Sections 319.1-319.11 and any additional effluent reporting requirements contained in the permit are suspended from the effective date of the permit until plant startup or discharge, whichever comes first, from the facility described by this permit. The permittee shall provide written notice to the TCEQ Region 4 Office and the Applications Review and Processing Team (MC-148) of the Water Quality Division at least forty-five (45) days prior to plant startup or anticipated discharge, whichever occurs first, on Notification of Completion Form 20007.
6. Wastewater discharged via Outfall 001 shall be sampled and analyzed for those parameters listed in Tables 1 and 2 of Attachment 1 of this permit for a minimum of four separate sampling events which are a minimum of one week apart. Analytical testing for Outfall 001 shall be completed within the first 90 days after initial discharge that is representative of regular operations and submitted to the TCEQ, Wastewater Permitting Section (MC-148), Industrial Permits Team. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and monitoring requirements.
7. Water treatment plant sludge may be disposed of either at an approved landfill or by another method in accordance with 30 TAC Chapter 312, Subchapter F. The permittee shall give 180 days prior notice to the Executive Director of any planned change in the water treatment sludge disposal practice.

The permittee shall comply with the following sludge requirements:

- a. The permittee shall handle and dispose of water treatment sludge in accordance with the requirements of 30 TAC Section 312.121 and Title 40, Part 527 of the Code of Federal Regulations and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present.
- b. If the permittee generates water treatment sludge and supplies that water treatment sludge to the owner or operator of a Municipal Solid Waste Landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information to

insure compliance with the permit for that MSWLF. The permittee shall ensure that the water treatment sludge meets the requirements in 40 CFR Part 258 concerning the quality of the sludge disposed in a municipal solid waste landfill.

- c. The permittee shall report the following information annually to the TCEQ's Enforcement Division (MC-224) and to the Region 4 Office in September of each year:
 - i. Annual sludge production in dry tons/year.
 - ii. For land application:
 - (a) Amount of sludge disposed of in dry tons/year.
 - (b) Certification that the water treatment sludge meets the requirements of 40 CFR Part 257 concerning the quality of the sludge being land applied.
 - iii. For sludge disposed of in a municipal solid waste landfill:
 - (a) Amount of sludge in dry tons/year.
 - (b) Date(s) of disposal.
 - (c) Identity of hauler and TCEQ transporter registration number.
 - (d) Owner and location of disposal site.
 - (e) Registration or permit number of disposal facility.
 - (f) Certification that the water treatment sludge meets the requirements of 40 CFR Part 258 concerning the quality of the sludge disposed in a MSWLF.

The above records must be maintained on-site on a monthly basis and must be made available to the TCEQ upon request.

- d. Sludge which has come into contact with reject water from the water treatment unit may not be disposed of on-site.
- e. The pH of the sludge and soil mixture must be 6.5 standard units or greater.

8. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

- a. The permittee shall conduct the following whole effluent toxicity tests utilizing the test organisms, procedures, and quality assurance requirements specified in "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," Fourth Edition (EPA-821-R-02-013), or the most recent update.
 - 1) Chronic static renewal, survival, and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0 or the most recent update). This test may be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever comes first.
 - 2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0 or the most recent update). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution.
- b. The tests must be conducted once per quarter during each of the first four full calendar quarters following the initial discharge representative of regular operations at the facility. The permittee shall perform and report a valid test for each species during each of the four quarters. An invalid test must be repeated during the same quarter. An invalid test is herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirement specified in the above-referenced test methods.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These additional effluent concentrations are 4%, 5%, 7%, 9%, and 12% effluent. The critical dilution, defined as 9% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical flow or critical mixing conditions.
- d. Dilution water used in the toxicity tests must be moderately hard synthetic dilution water.
- e. If any of the tests exhibit a significant effect at the critical dilution, three retests must be performed within the following 90 days. A significant effect is defined as a statistically significant difference at the 95% confidence level, between a specified endpoint (survival, growth, or reproduction) of the test organism in a specified effluent dilution when compared to the specified endpoint of the test organism in the control. If two of the retests also exhibit a significant effect, the permittee shall conduct a study with the objective of determining the cause of the test failures and identifying actions that will eliminate test failures due to that cause.
- f. Reports for all of the tests specified above must be submitted to the TCEQ Standards Implementation Team (MC 150) of the Water Quality Division within 45 days of completion of the final quarterly test.

Attachment 1

Table 1

Outfall No. 001	<input type="checkbox"/> C <input type="checkbox"/> G	Effluent Concentration (mg/L)				
		Samp.	Samp.	Samp.	Samp.	Average
Pollutants						
BOD (5-day)						
CBOD (5-day)						
Chemical Oxygen Demand						
Total Organic Carbon						
Dissolved Oxygen						
Ammonia Nitrogen						
Total Suspended Solids						
Nitrate Nitrogen						
Total Organic Nitrogen						
Total Phosphorus						
Oil and Grease						
Total Residual Chlorine						
Total Dissolved Solids						
Sulfate						
Chloride						
Fluoride						
Temperature (°F)						
Total Alkalinity (mg/L as CaCO3)						
pH (Standard Units; min/max)						

	Effluent Concentration (µg/L)					MAL (µg/L)
Total Aluminum						30
Total Antimony						30
Total Arsenic						10
Total Barium						10
Total Beryllium						5
Total Cadmium						1
Total Chromium						10
Trivalent Chromium						N/A
Hexavalent Chromium						10
Total Copper						10
Cyanide						20
Total Lead						5
Total Mercury						0.2
Total Nickel						10
Total Selenium						10
Total Silver						2.0
Total Thallium						10
Total Zinc						5

Table 2

Outfall No.: 001	<input type="checkbox"/> C <input type="checkbox"/> G	Samp. 1 (µg/L)*	Samp. 2 (µg/L)*	Samp. 3 (µg/L)*	Samp. 4 (µg/L)*	Avg. (µg/L)*	MAL (µg/L)
Pollutant							
Acrylonitrile							50
Anthracene							10
Benzene							10
Benzidine							50
Benzo(a)anthracene							10
Benzo(a)pyrene							10
Bis(2-chloroethyl)ether							10
Bis(2-ethylhexyl)phthalate							10
Bromodichloromethane							10
Bromoform							10
Carbon Tetrachloride							10
Chlorobenzene							10
Chlorodibromomethane							10
Chloroform							10
Chrysene							10
Cresols							(**)
1,2-Dibromoethane							2
<i>m</i> -Dichlorobenzene							10
<i>o</i> -Dichlorobenzene							10
<i>p</i> -Dichlorobenzene							10
3,3'-Dichlorobenzidine							5
1,2-Dichloroethane							10
1,1-Dichloroethylene							10
Dichloromethane							20
1,2-Dichloropropane							10
2,4-Dimethylphenol							10
Di- <i>n</i> -Butyl Phthalate							10
Ethylbenzene							10
Fluoride							500
Hexachlorobenzene							10
Hexachlorobutadiene							10
Hexachlorocyclopentadiene							10
Hexachloroethane							20
Methyl Ethyl Ketone							50
Nitrobenzene							10
<i>N</i> -Nitrosodiethylamine							20
<i>N</i> -Nitroso-di- <i>n</i> -Butylamine							20
Nonylphenol							333
Pentachlorobenzene							20
Pentachlorophenol							50
Phenanthrene							10

Outfall No.: 001	<input type="checkbox"/> C <input type="checkbox"/> G	Samp. 1 (µg/L)*	Samp. 2 (µg/L)*	Samp. 3 (µg/L)*	Samp. 4 (µg/L)*	Avg. (µg/L)*	MAL (µg/L)
Pollutant							
Polychlorinated Biphenyls (PCBs) (***)							1
Pyridine							20
1,2,4,5-Tetrachlorobenzene							20
1,1,2,2-Tetrachloroethane							10
Tetrachloroethylene							10
Toluene							10
1,1,1-Trichloroethane							10
1,1,2-Trichloroethane							10
Trichloroethylene							10
2,4,5-Trichlorophenol							50
TTHM (Total Trihalomethanes)							10
Vinyl Chloride							10

(*) Indicate units if different from µg/L.

(**) MALs for Cresols: p-Chloro-m-Creso 10 µg/L; 4,6-Dinitro-o-Cresol 50 µg/L; p-Cresol 10 µg/L.

(***) Total PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

**STATEMENT OF BASIS/TECHNICAL SUMMARY AND
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DESCRIPTION OF APPLICATION

Applicant: North Texas Municipal Water District; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004996000 (TX0133671)

Regulated Activity: Industrial Wastewater Permit

Type of Application: New Permit

Request: New Permit to authorize the discharge of desalination concentrate at a daily average flow not to exceed 9.3 MGD

Authority: Federal Clean Water Act §402; Texas Water Code §26.027; Title 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, Chapters 307 and 319, Commission Policies; and EPA Guidelines

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. It is proposed the permit be issued to expire on December 1, 2017 in accordance with 30 TAC §305.71, Basin Permitting.

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit.

PROJECT DESCRIPTION AND LOCATION

The applicant proposes to operate the North Texas Municipal Water District (NTMWD) Leonard Water Treatment Plant.

The proposed Leonard Water Treatment Plant will consist of conventional water treatment (that is, coagulation, filtration, etc.) followed by a desalination process, which will likely include a pretreatment operation. Some of the conventionally treated water will be bypassed around the desalination process to be blended with desalinated water prior to distribution to NTMWD's treated water system. At present, both electrodialysis reversal (EDR) and multi-stage reverse osmosis (RO) are being considered for the desalination process; the final desalination process will be selected based on the performance of pilot studies. The RO process was used to develop the desalination concentrate quantity and quality information required for the application for this permit, as constituent loadings generated from the RO process are expected to be equal to or greater than those generated by the EDR process. Brine residuals (concentrate) from the desalination process will be discharged at a daily average flow not to exceed 9.3 million gallons per day (MGD) via Outfall 001. Domestic wastewater will either be routed to the City of Leonard Publicly Owned Treatment Works (POTW) or to an on-site sewage facility. All other waste generated at the plant, which may include clarifier blowdown, filter backwash, and backwash from maintenance and pretreatment membranes, is expected to be trucked to a permitted landfill or be disposed of in accordance with 30 TAC Chapter 312, Subchapter F.

The plant site is located 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard, Fannin County, Texas.

The effluent is discharged to an unnamed tributary; thence to the Red River Below Lake Texoma in Segment No. 0202 of the Red River Basin. Because Segment No. 0202 is within 300 feet of the outfall, the discharge is considered direct to segment and the unnamed tributary is not assessed. The

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designated uses for Segment No. 0202 are contact recreation, public water supply, and high aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

In accordance with 30 TAC §307.5 and the TCEQ implementation procedures (January 2003) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the Red River Below Lake Texoma, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

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

Segment No. 0202 is not currently listed on the State's inventory of impaired and threatened waters (the 2010 Clean Water Act Section 303(d) list).

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because the facility has not been constructed.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of desalination concentrate at a daily average flow not to exceed 9.3 million gallons per day via Outfall 001.

Final effluent limitations are established in the draft permit as follows:

Outfall Number	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
001	Flow	9.3 MGD	18.6 MGD
	Total Suspended Solids	20	30
	Total Dissolved Solids	Report	Report
	Chloride	Report	Report
	Sulfate	Report	Report
	pH (standard units, S.U.)	6.0 S.U., min	9.0 S.U.

Regulations promulgated in Title 40 of the Code of Federal Regulations (40 CFR) require technology-based limitations be placed in wastewater discharge permits based on effluent limitation guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines. No federal effluent limitation guidelines apply to the discharge of desalination concentrate from a potable water treatment plant. A pH limit of between 6.0-9.0 standard units is established in the draft permit based

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on BPJ. A screening calculation was performed to evaluate whether this pH limitation would also ensure that the Segment 0202 pH criteria of 6.5-9.0 standard units would be maintained at the edge of the mixing zone. The screening predicts that this pH limitation will be adequate (see Appendix A).

Water quality-based effluent limitations for the protection of aquatic life are presented at Appendix A. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations as well as recommendations by the Water Quality Assessment Team memorandum dated August 3, 2012. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation. No actual effluent data were submitted with the application because the facility has yet to be built. Conservative model-based estimates of pollutant concentrations were provided, and these values were initially screened against the calculated daily average water quality-based effluent limitations. The estimated concentration of total silver was 70.8% of the calculated daily average limit, and the estimated concentration of cadmium was 82.4% of the calculated daily average limit. Additional information supplied by the applicant on November 21, 2013 included revised estimated concentrations of total silver and total cadmium that are both well below 70% of the calculated daily average limits. After review of this information, no additional monitoring and reporting requirements for total silver or total cadmium were included in the draft permit. Other Requirement No. 6 of the draft permit requires effluent testing once discharge commences, and if any results exceed the 70% or 85% levels, the permit may be reopened to add appropriate effluent monitoring and reporting or limitations.

Screening was also performed to evaluate whether permit limitations were needed for total dissolved solids (TDS), chloride, and sulfate. Based on the results of this screening (see Appendix A), no effluent limitations for TDS, chloride, or sulfate are needed in the draft permit. The effluent concentrations for TDS, chloride, and sulfate submitted in the application are projected values based on source water concentrations and modeling of the solids removal process. Because TDS, chloride, and sulfate will be present in the discharge, monitoring and reporting requirements for TDS, chloride, and sulfate are included in the draft permit based on BPJ.

Biomonitoring requirements have been included in the draft permit at the request of the applicant.

SUMMARY OF CHANGES FROM APPLICATION

The following changes have been made from the application, which make the draft permit more stringent.

1. At the request of the applicant, daily average and daily maximum limitations on total suspended solids have been added to the draft permit.
2. Monitoring and reporting requirements are included in the draft permit for TDS, chloride, and sulfate because these are constituents that will be present in the effluent, and effluent concentrations provided in the application are based on source water concentrations and modeling of the solids removal process.
3. Effluent testing requirements are included in Other Requirement No. 6 of the draft permit because the facility is new and could not supply actual effluent data in the application.

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4. At the request of the applicant, whole effluent toxicity (WET) testing, or biomonitoring, requirements have been included in Other Requirement No. 8 of the draft permit.

See the next section for additional changes to the existing permit.

SUMMARY OF CHANGES FROM EXISTING PERMIT

N/A, this is an application for a new permit.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on June 11, 2012 and additional information received on July 12, 2012, November 21, 2013, and July 31, 2014.
2. Existing permits: N/A, new permit.
3. Waste Load Evaluation for Segment No. 0202.
4. TCEQ Rules.
5. Texas Surface Water Quality Standards – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA.
6. Texas Surface Water Quality Standards - 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 Standards not approved by EPA.
7. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003.
8. Appendix D, *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, Draft, June 2010.
9. Memos from the Water Quality Standards Implementation Team and the Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
10. "Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits," TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
11. EPA Effluent Guidelines: N/A.
12. Consistency with the Coastal Management Plan: N/A

PROCEDURES FOR FINAL DECISION

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

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

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Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment, and is not a contested case proceeding. After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

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

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

For additional information about this application, contact Karen Holligan at (512) 239-4589.

Karen Holligan
Karen Holligan

August 18, 2014
Date

**STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
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**Appendix A
Calculated Water Quality-Based Effluent Limits**

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2010 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life

Table 2, 2010 Texas Surface Water Quality Standards for Human Health (except Mercury)

Table 3, 2000 Texas Surface Water Quality Standards for Human Health (Mercury)

"Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003

"Procedures to Implement the Texas Surface Water Quality Standards," Appendix D, Texas Commission on Environmental Quality, June 2010

PERMIT INFORMATION

Permittee Name:	<u>North Texas Municipal Water District</u>
TPDES Permit No.:	<u>WQ0004996000</u>
Outfall No.:	<u>001</u>
Prepared by:	<u>Karen Holligan</u>
Date:	<u>November 16, 2012</u>

DISCHARGE INFORMATION

Receiving Waterbody:	<u>Red River Below Lake Texoma</u>
Segment No.:	<u>0202</u>
TSS (mg/L):	<u>19</u>
pH (Standard Units):	<u>7.3</u>
Hardness (mg/L as CaCO ₃):	<u>175</u>
Chloride (mg/L):	<u>197</u>
Effluent Flow for Aquatic Life (MGD):	<u>9.3</u>
Critical Low Flow [7Q2] (cfs):	<u>146</u>
Percent Effluent for Mixing Zone:	<u>8.97</u>
Percent Effluent for Zone of Initial Dilution:	<u>28.28</u>
Effluent Flow for Human Health (MGD):	<u>9.3</u>
Harmonic Mean Flow (cfs):	<u>482</u>
Percent Effluent for Human Health:	<u>2.90</u>
Public Water Supply Use?:	<u>Yes</u>

CALCULATE DISSOLVED FRACTION:

<i>Stream/River Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Water Effect Ratio (WER)</i>		
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	55784.03	0.49		1.00	Assumed
Cadmium	6.60	-1.13	142892.17	0.27		1.00	Assumed
Chromium (Total)	6.52	-0.93	214170.25	0.20		1.00	Assumed
Chromium (+3)	6.52	-0.93	214170.25	0.20		1.00	Assumed
Chromium (+6)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	118501.09	0.31		1.00	Assumed
Lead	6.45	-0.80	267298.87	0.16		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	91434.57	0.37		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	115580.29	0.31		1.00	Assumed
Zinc	6.10	-0.70	160277.47	0.25		1.00	Assumed

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CONVERT TISSUE-BASED CRITERIA TO WATER COLUMN CRITERIA:

<i>Parameter</i>	<i>Water and Fish Criterion (ug/kg)</i>	<i>Fish Only Criterion (ug/kg)</i>	<i>BCF (L/kg)</i>	<i>Water and Fish Criterion (ug/L)</i>	<i>Fish Only Criterion (ug/L)</i>
4,4'-DDD	166.16	166.16	53600	0.0031	0.0031
4,4'-DDE	214.4	214.4	53600	0.004	0.004
4,4'-DDT	209.04	209.04	53600	0.0039	0.0039
Dioxins/Furans	0.0004	0.0004	5000	8.00E-08	8.00E-08
Polychlorinated Biphenyls (PCBs)	19.96	19.96	31200	6.40E-04	6.40E-04

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (ug/L)</i>	<i>FW Chronic Criterion (ug/L)</i>	<i>WLAa</i>	<i>WLAc</i>	<i>LTAa</i>	<i>LTAc</i>	<i>Daily Avg. (ug/L)</i>	<i>Daily Max. (ug/L)</i>
Aldrin	3	N/A	10.6	N/A	6.08	N/A	8.94	18.9
Aluminum	991	N/A	3505	N/A	2008	N/A	2952	6246
Arsenic	340	150	2477	3444	1419	2652	2086	4414
Cadmium	14.8	0.363	194	15.0	111	11.6	17.0	36.0
Carbaryl	2	N/A	7.07	N/A	4.05	N/A	5.96	12.6
Chlordane	2.4	0.004	8.49	0.045	4.86	0.034	0.050	0.107
Chlorpyrifos	0.083	0.041	0.294	0.457	0.168	0.352	0.247	0.523
Chromium (+3)	901	117	16154	6623	9256	5099	7496	15859
Chromium (+6)	15.7	10.6	55.5	118	31.8	91.0	46.8	98.9
Copper	24.1	15.3	277	554	159	426	233	493
Cyanide	45.8	10.7	162	119	92.8	91.8	135	286
4,4'-DDT	1.1	0.001	3.89	0.011	2.23	0.009	0.013	0.027
Demeton	N/A	0.1	N/A	1.11	N/A	0.858	1.26	2.67
Diazinon	0.17	0.17	0.601	1.89	0.345	1.46	0.506	1.07
Dicofol	59.3	19.8	210	221	120	170	177	374
Dieldrin	0.24	0.002	0.849	0.022	0.486	0.017	0.025	0.053
Diuron	210	70	743	780	426	601	626	1324
Endosulfan I (alpha)	0.22	0.056	0.778	0.624	0.446	0.481	0.655	1.39
Endosulfan II (beta)	0.22	0.056	0.778	0.624	0.446	0.481	0.655	1.39
Endosulfan sulfate	0.22	0.056	0.778	0.624	0.446	0.481	0.655	1.39
Endrin	0.086	0.002	0.304	0.022	0.174	0.017	0.025	0.053
Guthion	N/A	0.01	N/A	0.111	N/A	0.086	0.126	0.267
Heptachlor	0.52	0.004	1.84	0.045	1.05	0.034	0.050	0.107
Hexachlorocyclohexane (Lindane)	1.126	0.08	3.98	0.892	2.28	0.687	1.01	2.14
Lead	118	4.60	2539	312	1455	240	353	747
Malathion	N/A	0.01	N/A	0.111	N/A	0.086	0.126	0.267
Mercury	2.4	1.3	8.49	14.5	4.86	11.2	7.15	15.1
Methoxychlor	N/A	0.03	N/A	0.334	N/A	0.257	0.379	0.801
Mirex	N/A	0.001	N/A	0.011	N/A	0.009	0.013	0.027
Nickel	752	83.5	7277	2548	4170	1962	2884	6101
Nonylphenol	28	6.6	99.0	73.6	56.7	56.6	83.3	176
Parathion (ethyl)	0.065	0.013	0.230	0.145	0.132	0.112	0.164	0.347
Pentachlorophenol	11.8	9.05	41.7	101	23.9	77.7	35.1	74.3
Phenanthrene	30	30	106	334	60.8	257	89.4	189
Polychlorinated Biphenyls (PCBs)	2	0.014	7.07	0.156	4.05	0.120	0.177	0.374
Selenium	20	5	70.7	55.7	40.5	42.9	59.6	126
Silver (free ion)	0.8	N/A	101	N/A	57.7	N/A	84.8	179
Toxaphene	0.78	0.0002	2.76	0.0022	1.58	0.0017	0.0025	0.0053
Tributyltin (TBT)	0.13	0.024	0.460	0.268	0.263	0.206	0.303	0.641
2,4,5 Trichlorophenol	136	64	481	713	276	549	405	857

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AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>FW Acute Criterion (ug/L)</i>	<i>FW Chronic Criterion (ug/L)</i>	<i>WLAa</i>	<i>WLAc</i>	<i>LTAa</i>	<i>LTAc</i>	<i>Daily Avg. (ug/L)</i>	<i>Daily Max. (ug/L)</i>
Zinc	188	190	2694	8559	1543	6590	2269	4800

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion (ug/L)</i>	<i>Fish Only Criterion (ug/L)</i>	<i>WLAh</i>	<i>LTAh</i>	<i>Daily Avg. (ug/L)</i>	<i>Daily Max. (ug/L)</i>
Acrylonitrile	0.8	3.8	27.60	25.67	37.73	79.82
Aldrin	0.00094	0.001	0.032	0.030	0.044	0.094
Anthracene	5569	N/A	192116	178668	262642	555658
Antimony	6	1071	207	192	283	599
Arsenic	10	N/A	711	661	971	2055
Barium	2000	N/A	68995	64165	94323	199554
Benzene	5	513	172	160	236	499
Benidine	0.00086	0.002	0.030	0.028	0.041	0.086
Benzo(a)anthracene	0.068	0.33	2.35	2.18	3.21	6.78
Benzo(a)pyrene	0.068	0.33	2.35	2.18	3.21	6.78
Bis(chloromethyl)ether	0.0024	0.44	0.083	0.077	0.113	0.239
Bis(2-chloroethyl)ether	0.3	5.27	10.3	9.62	14.1	29.9
Bis(2-ethylhexyl)phthalate	6	41	207	192	283	599
Bromodichloromethane	10.2	322	352	327	481	1018
Bromoform	69.1	2175	2384	2217	3259	6895
Cadmium	5	N/A	641	596	876	1853
Carbon Tetrachloride	4.1	29	141	132	193	409
Chlordane	0.008	0.0081	0.276	0.257	0.377	0.798
Chlorobenzene	100	5201	3450	3208	4716	9978
Chlorodibromomethane (Dibromochloromethane)	7.6	239	262	244	358	758
Chloroform	70	7143	2415	2246	3301	6984
Chromium (+6)	62	502	2139	1989	2924	6186
Chrysene	68.13	327	2350	2186	3213	6798
Cresols	736	1981	25390	23613	34711	73436
Cyanide	200	N/A	6899	6417	9432	19955
4,4'-DDD	0.0031	0.0031	0.107	0.099	0.146	0.309
4,4'-DDE	0.004	0.004	0.138	0.128	0.189	0.399
4,4'-DDT	0.0039	0.0039	0.135	0.125	0.184	0.389
2,4'-D	70	N/A	2415	2246	3301	6984
Danitrol	5.39	5.44	186	173	254	538
1,2-Dibromoethane	0.16	2.13	5.52	5.13	7.55	16.0
m-Dichlorobenzene	473	1445	16317	15175	22307	47195
o-Dichlorobenzene	600	4336	20698	19250	28297	59866
p-Dichlorobenzene	75	N/A	2587	2406	3537	7483
3,3'-Dichlorobenzidine	0.32	0.44	11.0	10.3	15.1	31.9
1,2-Dichloroethane	5	553	172	160	236	499
1,1-Dichloroethylene	7	23916	241	225	330	698
Dichloromethane	5	5926	172	160	236	499
1,2-Dichloropropane	5	226	172	160	236	499
1,3-Dichloropropene (1,3- Dichloropropylene)	3.4	211	117	109	160	339
Dicofol	0.076	0.076	2.62	2.44	3.58	7.58

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HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Water and Fish Criterion (ug/L)</i>	<i>Fish Only Criterion (ug/L)</i>	<i>WLAh</i>	<i>LTAh</i>	<i>Daily Avg. (ug/L)</i>	<i>Daily Max. (ug/L)</i>
Dieldrin	0.0005	0.0005	0.017	0.016	0.024	0.050
2,4-Dimethylphenol	257	571	8866	8245	12120	25643
Di-n-Butyl Phthalate	1318	3010	45468	42285	62159	131506
Dioxins/Furans (TCDD Equivalents)	8.00E-08	8.00E-08	2.76E-06	2.57E-06	3.77E-06	7.98E-06
Endrin	0.2	0.2	6.90	6.42	9.43	20.0
Ethylbenzene	700	7143	24148	22458	33013	69844
Fluoride	4000	N/A	137990	128330	188646	399108
Heptachlor	0.0015	0.0015	0.052	0.048	0.071	0.150
Heptachlor Epoxide	0.00074	0.00075	0.026	0.024	0.035	0.074
Hexachlorobenzene	0.0044	0.0045	0.152	0.141	0.208	0.439
Hexachlorobutadiene	6.5	274	224	209	307	649
Hexachlorocyclohexane (alpha)	0.05	0.093	1.72	1.60	2.36	4.99
Hexachlorocyclohexane (beta)	0.17	0.33	5.86	5.45	8.02	17.0
Hexachlorocyclohexane (gamma) (Lindane)	0.2	6.2	6.90	6.42	9.43	20.0
Hexachlorocyclopentadiene	50	N/A	1725	1604	2358	4989
Hexachloroethane	27	62	931	866	1273	2694
Hexachlorophene	0.008	0.008	0.276	0.257	0.377	0.798
Lead	1.15	3.83	241	224	330	697
Mercury	0.0122	0.0122	0.421	0.391	0.575	1.217
Methoxychlor	0.33	0.33	11.4	10.6	15.6	32.9
Methyl Ethyl Ketone	13932	1500000	480618	446975	657053	1390093
Nickel	332	1140	31350	29156	42859	90674
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	344974	320826	471615	997770
Nitrobenzene	11	463	379	353	519	1098
N-Nitrosodiethylamine	0.0037	2.1	0.128	0.119	0.174	0.369
N-Nitroso-di-n-Butylamine	0.119	4.2	4.11	3.82	5.61	11.9
Pentachlorobenzene	1	1	34.5	32.1	47.2	99.8
Pentachlorophenol	1	57	34.5	32.1	47.2	99.8
Polychlorinated Biphenyls (PCBs)	6.40E-04	6.40E-04	0.022	0.021	0.030	0.064
Pyridine	23	2014	793	738	1085	2295
Selenium	50	N/A	1725	1604	2358	4989
1,2,4,5-Tetrachlorobenzene	0.65	0.71	22.4	20.9	30.7	64.9
1,1,2,2-Tetrachloroethane	3.2	76	110	103	151	319
Tetrachloroethylene	5	49	172	160	236	499
Thallium	0.75	1.5	25.9	24.1	35.4	74.8
Toluene	1000	N/A	34497	32083	47161	99777
Toxaphene	0.0053	0.0053	0.183	0.170	0.250	0.529
2,4,5-TP (Silvex)	7.3	7.6	252	234	344	728
1,1,1-Trichloroethane	200	956663	6899	6417	9432	19955
1,1,2-Trichloroethane	5	295	172	160	236	499
Trichloroethylene	5	649	172	160	236	499
2,4,5-Trichlorophenol	1194	2435	41190	38307	56311	119134
TTHM (Sum of Total Trihalomethanes)	80	N/A	2760	2567	3773	7982
Vinyl Chloride	0.25	24	8.62	8.02	11.8	24.9

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CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS

Aquatic Life		
Parameter	70%	85%
Aldrin	6.26	7.60
Aluminum	2066	2509
Arsenic	1460	1773
Cadmium	11.9	14.5
Carbaryl	4.17	5.06
Chlordane	0.035	0.043
Chlorpyrifos	0.173	0.210
Chromium (+3)	5247	6372
Chromium (+6)	32.7	39.8
Copper	163	198
Cyanide	94.5	115
4,4'-DDT	0.009	0.011
Demeton	0.883	1.07
Diazinon	0.354	0.430
Dicofol	124	150
Dieldrin	0.018	0.021
Diuron	438	532
Endosulfan (alpha)	0.459	0.557
Endosulfan (beta)	0.459	0.557
Endosulfan sulfate	0.459	0.557
Endrin	0.018	0.021
Guthion	0.088	0.107
Heptachlor	0.035	0.043
Hexachlorocyclohexane (Lindane)	0.707	0.858
Lead	247	300
Malathion	0.088	0.107
Mercury	5.00	6.08
Methoxychlor	0.265	0.322
Mirex	0.009	0.011
Nickel	2019	2451
Nonylphenol	58.3	70.8
Parathion (ethyl)	0.115	0.139
Pentachlorophenol	24.6	29.9
Phenanthrene	62.6	76.0
Polychlorinated Biphenyls (PCBs)	0.124	0.150
Selenium	41.7	50.6
Silver (free ion)	59.4	72.1
Toxaphene	0.0018	0.0021
Tributyltin (TBT)	0.212	0.257
2,4,5 Trichlorophenol	284	344
Zinc	1588	1928

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Human Health		
Parameter	70%	85%
Acrylonitrile	26.4	32.1
Aldrin	0.031	0.038
Anthracene	183850	223246
Antimony	198	241
Arsenic	680	826
Barium	66026	80174
Benzene	165	200
Benzidine	0.028	0.034
Benzo(a)anthracene	2.24	2.73
Benzo(a)pyrene	2.24	2.73
Bis(chloromethyl)ether	0.079	0.096
Bis(2-chloroethyl)ether	9.90	12.0
Bis(2-ethylhexyl)phthalate	198	241
Bromodichloromethane	337	409
Bromoform	2281	2770
Cadmium	613	745
Carbon Tetrachloride	135	164
Chlordane	0.264	0.321
Chlorobenzene	3301	4009
Chlorodibromomethane (Dibromochloromethane)	251	305
Chloroform	2311	2806
Chromium (+6)	2047	2485
Chrysene	2249	2731
Cresols	24298	29504
Cyanide	6603	8017
4,4'-DDD	0.102	0.124
4,4'-DDE	0.132	0.160
4,4'-DDT	0.129	0.156
2,4'-D	2311	2806
Danitol	178	216
1,2-Dibromoethane	5.28	6.41
m-Dichlorobenzene	15615	18961
o-Dichlorobenzene	19808	24052
p-Dichlorobenzene	2476	3007
3,3'-Dichlorobenzidine	10.6	12.8
1,2-Dichloroethane	165	200
1,1-Dichloroethylene	231	281
Dichloromethane	165	200
1,2-Dichloropropane	165	200
1,3-Dichloropropene (1,3- Dichloropropylene)	112	136
Dicofol	2.51	3.05
Dieldrin	0.017	0.020
2,4-Dimethylphenol	8484	10302
Di-n-Butyl Phthalate	43511	52835
Dioxins/Furans (TCDD Equivalents)	2.64E-06	3.21E-06
Endrin	6.60	8.02
Ethylbenzene	23109	28061
Fluoride	132052	160349
Heptachlor	0.050	0.060
Heptachlor Epoxide	0.024	0.030
Hexachlorobenzene	0.145	0.176
Hexachlorobutadiene	215	261

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Human Health		
Parameter	70%	85%
Hexachlorocyclohexane (alpha)	1.65	2.00
Hexachlorocyclohexane (beta)	5.61	6.81
Hexachlorocyclohexane (gamma) (Lindane)	6.60	8.02
Hexachlorocyclopentadiene	1651	2004
Hexachloroethane	891	1082
Hexachlorophene	0.264	0.321
Lead	231	280
Mercury	0.403	0.489
Methoxychlor	10.9	13.2
Methyl Ethyl Ketone	459937	558495
Nickel	30001	36430
Nitrate-Nitrogen (as Total Nitrogen)	330130	400872
Nitrobenzene	363	441
N-Nitrosodiethylamine	0.122	0.148
N-Nitroso-di-n-Butylamine	3.93	4.77
Pentachlorobenzene	33.0	40.1
Pentachlorophenol	33.0	40.1
Polychlorinated Biphenyls (PCBs)	0.021	0.026
Pyridine	759	922
Selenium	1651	2004
1,2,4,5-Tetrachlorobenzene	21.5	26.1
1,1,2,2-Tetrachloroethane	106	128
Tetrachloroethylene	165	200
Thallium	24.8	30.1
Toluene	33013	40087
Toxaphene	0.175	0.212
2,4,5-TP (Silvex)	241	293
1,1,1-Trichloroethane	6603	8017
1,1,2-Trichloroethane	165	200
Trichloroethylene	165	200
2,4,5-Trichlorophenol	39418	47864
TTHM (Sum of Total Trihalomethanes)	2641	3207
Vinyl Chloride	8.25	10.0

**STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004996000**

**Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate
Menu 3 - Discharge to a Perennial Stream or River**

Applicant Name:	North Texas Municipal Water District
Permit Number:	WQ0004996000
Segment Number:	0202

Enter values needed for screening:	Value	Units	Data Source
QE - Average effluent flow	<u>9.3</u>	MGD	Permit application
QS - Perennial stream harmonic mean flow	<u>482.00</u>	cfs	Critical conditions memo
QE - Average effluent flow	<u>14.3892</u>	cfs	Calculated
CA - TDS - ambient segment concentration	<u>784</u>	mg/L	June 2010 IP, Appendix D
CA - chloride - ambient segment concentration	<u>197</u>	mg/L	June 2010 IP, Appendix D
CA - sulfate - ambient segment concentration	<u>150</u>	mg/L	June 2010 IP, Appendix D
CC - TDS - segment criterion	<u>1,100</u>	mg/L	2010 TSWQS, Appendix A
CC - chloride - segment criterion	<u>375</u>	mg/L	2010 TSWQS, Appendix A
CC - sulfate - segment criterion	<u>250</u>	mg/L	2010 TSWQS, Appendix A
CE - TDS - average effluent concentration	<u>5,000</u>	mg/L	Permit application
CE - chloride - average effluent concentration	<u>1,725</u>	mg/L	Permit application
CE - sulfate - average effluent concentration	<u>1,000</u>	mg/L	Permit application

Screening Equation

$$CC \geq [(QS)(CA) + (QE)(CE)]/[QE + QS]$$

Permit Limit Calculations

TDS

Calculate the WLA	WLA = [CC(QE+QS) - (QS)(CA)]/QE	11,685
Calculate the LTA	LTA = WLA * 0.93	10,867
Calculate the daily average	Daily Avg. = LTA * 1.47	15,975
Calculate the daily maximum	Daily Max. = LTA * 3.11	33,797
Calculate 70% of the daily average	70% of Daily Avg. =	11,182
Calculate 85% of the daily average	85% of Daily Avg. =	13,579
No permit limitations required if:	5,000 ≤ 11,182	
Reporting required if:	5,000 > 11,182 but ≤ 13,579	
Permit limits may be required if:	5,000 > 13,579	

**STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004996000**

Chloride

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	6,338
Calculate the LTA	$LTA = WLA * 0.93$	5,894
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	8,664
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	18,330
Calculate 70% of the daily average	70% of Daily Avg. =	6,065
Calculate 85% of the daily average	85% of Daily Avg. =	7,364

No permit limitations required if:	1,725	≤	6,065		
Reporting required if:	1,725	>	6,065	but ≤	7,364
Permit limits may be required if:	1,725	>	7,364		

Sulfate

Calculate the WLA	$WLA = [CC(QE+QS) - (QS)(CA)]/QE$	3,600
Calculate the LTA	$LTA = WLA * 0.93$	3,348
Calculate the daily average	$Daily\ Avg. = LTA * 1.47$	4,921
Calculate the daily maximum	$Daily\ Max. = LTA * 3.11$	10,411
Calculate 70% of the daily average	70% of Daily Avg. =	3,445
Calculate 85% of the daily average	85% of Daily Avg. =	4,183

No permit limitations required if:	1,000	≤	3,445		
Reporting required if:	1,000	>	3,445	but ≤	4,183
Permit limits may be required if:	1,000	>	4,183		

Conclusion

Based on these screenings, neither effluent limitations nor monitoring are required for TDS, sulfate, or chloride.

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0004996000

Screening Calculations for pH

This calculation of resulting pH after a mixture of two flows is based on the procedure in EPA's DESCON program (EPA, 1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C. Sources of input data are noted within square brackets.

Input	
1. Dilution Factor at Mixing Zone Boundary [<i>memo from Water Quality Assessment Team dated August 3, 2012</i>]:	11.150
Receiving Water Characteristics	
2. Temperature (°C) [<i>Segment 0202 daily maximum criterion</i>]:	33.89
3. pH (standard units) [<i>Segment 0202 15th percentile value</i>]:	7.70
4. Alkalinity (mg/L as CaCO ₃) [<i>Segment 0202 15th percentile value</i>]:	94.00
Effluent Characteristics	
5. Temperature (°C) [<i>estimated to be 90°F</i>]:	32.22
6. pH (standard units) [<i>minimum pH limit</i>]:	6.00
7. Alkalinity (mg/L as CaCO ₃) [<i>estimated alkalinity at low pH</i>]:	20.00
Output	
1. Ionization Constants	
Upstream/Background pKa:	6.31
Effluent pKa:	6.31
2. Ionization Fractions	
Upstream/Background Ionization Fraction:	0.96
Effluent Ionization Fraction:	0.33
3. Total Inorganic Carbon	
Upstream/Background Total Inorganic Carbon (mg/L as CaCO ₃):	97.81
Effluent Total Inorganic Carbon (mg/L as CaCO ₃):	61.25
4. Conditions at Mixing Zone Boundary	
Temperature (°C):	33.74
Alkalinity (mg/L as CaCO ₃):	87.36
Total Inorganic Carbon (mg/L as CaCO ₃):	94.53
pKa:	6.31
pH at Mixing Zone Boundary:	
	7.39

Conclusion: the pH limits of 6.0-9.0 standard units are predicted to ensure that the pH criteria of 6.5-9.0 for Segment 0202 will be maintained at the edge of the mixing zone.

**30 TAC §281
APPENDIX B**

**TIDAL SEGMENTS DESIGNATED AS TCEQ PRIORITY WATERBODIES
COASTAL MANAGEMENT PROGRAM**

<u>Segment Number</u>	<u>Name</u>
2412.....	Sabine Lake
2411.....	Sabine Pass
2423.....	East Bay
2439.....	Lower Galveston Bay
0801.....	Trinity River Tidal
1113.....	Armand Bayou Tidal
2431.....	Moses Lake
2424.....	West Bay
2432.....	Chocolate Bay
2433.....	Bastrop Bay/Oyster Lake
2434.....	Christmas Bay
2435.....	Drum Bay
2442.....	Cedar Lakes
2441.....	East Matagorda Bay
2451.....	Matagorda Bay/Powderhorn Lake
2452.....	Tres Palacios Bay/Turtle Bay
2456.....	Carancahua Bay
2455.....	Keller Bay
2461.....	Espiritu Santo Bay
2462.....	San Antonio Bay/Hynes Bay/Guadalupe Bay
1801.....	Guadalupe River Tidal
2463.....	Mesquite Bay/Carlos Bay/Ayres Bay
2473.....	St. Charles Bay
2471.....	Aransas Bay
2472.....	Copano Bay/Port Bay/Mission Bay
2483.....	Redfish Bay
2482.....	Nueces Bay
2492.....	Baffin Bay/Alazan Bay/Cayo Del Grullo/Laguna Salada
2491.....	Laguna Madre
2493.....	South Bay

INDUSTRIAL EPA REVIEW CHECKLIST

Permittee Name: North Texas Municipal Water District

Permittee Number: WQ0004996000

PLEASE CHECK ALL THE APPLICABLE BELOW:

Draft permit authorizes:

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge to territorial seas (within 3 miles of the coastline) of the United States? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | discharge or sewage sludge management may affect another state or the Republic of Mexico? For sewage sludge management, "may affect" means accepts sewage sludge from another state or Mexico. For discharge, it means a discharge within 3 miles of a boundary with another state or Mexico. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge of uncontaminated cooling tower blowdown with a permitted daily average flow >500 MGD? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a designated major facility? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from a categorical industry as listed in 40 CFR Part 122, Appendix A? (see Attachment A) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | discharge from source other than categorical industry with a permitted daily average flow >0.5 MGD, except for facilities that discharge non-process wastewater? Non-process wastewater is water that (during manufacturing or processing) does not come into direct contact with, or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | minor facility discharge to critical concern species watersheds (see WQ Standards review) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (Prior to a final TMDL) discharge from a new or expanding facility to a 303(d) listed segment which has the potential to discharge any pollutant which is causing or contributing to the impairment of the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) discharge from a new or expanding discharge to a 303(d) listed segment where the TMDL does not allocate the loadings described in the draft permit? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) a permit with effluent limits which allow loadings in excess of those prescribed by the TMDL for the segment? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (After a final TMDL) permit allows a 3 year compliance schedule for limits based on the TMDL allocations? |

**If any column is marked "YES", EPA must receive a copy of the full permit package.
If no column is marked "YES", EPA does not need to review the draft permit.**

Karen Holligan
Permit Writer's Name

September 6, 2012
Date

ATTACHMENT A

PRIMARY INDUSTRIAL CATEGORIES

Adhesives and sealants.....	N/A
Aluminum forming.....	Part 467
Auto and other laundries.....	N/A
Battery and manufacturing.....	Part 461
Coal mining.....	Part 434
Coil coating.....	Part 465
Copper forming.....	Part 468
Electrical and electronic components.....	Part 469
Electroplating.....	Part 413
Explosives manufacturing.....	Part 457
Foundries.....	N/A
Gum and wood chemicals.....	Part 454
Inorganic chemicals manufacturing.....	Part 415
Iron and steel manufacturing.....	Part 420
Leather tanning and finishing.....	Part 425
Mechanical products manufacturing.....	N/A
Nonferrous metals manufacturing.....	Part 421
Ore mining.....	Part 440
Organic chemicals manufacturing.....	Part 414
Paint and ink formulation.....	Part 446
Pesticides.....	Part 455
Petroleum refining.....	Part 419
Pharmaceutical preparation.....	Part 439
Photographic equipment and supplies.....	Part 459
Plastics processing.....	Part 463
Plastic and synthetic material manufacturing.....	Part 414
Porcelain enameling.....	Part 466
Printing and publishing.....	N/A
Pulp and paper mills.....	Part 430
Rubber processing.....	Part 428
Soap and detergent manufacturing.....	Part 417
Steam electric power plants.....	Part 423
Textile mills.....	Part 410
Timber products processing.....	Part 429

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0004996000

NPDES No.: TX0133671

Facility Name: North Texas MWD Leonard Water Treatment Plant

City/County: Wylie, Texas / Fannin

Receiving Water (Name/Segment No.):

Red River Below Lake Texoma 0202

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (no cooling pond/lake).
2. A nuclear power plant.
3. Cooling water discharge greater than 25% of the receiving waters 7Q2 flow rate.

YES (score is 600, stop here).
 NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

YES (score is 700, stop here).
 NO (continue)

FACTOR 1: Toxic Pollutant Potential

Primary SIC Code: 4941

Other SIC Codes: _____

Industrial Subcategory Code 0

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one.

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input checked="" type="checkbox"/> No process wastestreams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

CODE NUMBER CHECKED 0
TOTAL POINTS FACTOR 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or B; check only one)

SECTION A - Wastewater Flow Only Considered

Wastewater Type		Code	Points
Type I:	Flow < 5 MGD	<input type="checkbox"/> 11	0
	Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
	Flow 10 to 50 MGD	<input type="checkbox"/> 13	20
	Flow > 50	<input type="checkbox"/> 14	30
Type II:	Flow <1 MGD	<input type="checkbox"/> 21	10
	Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
	Flow 5 to 10 MGD	<input checked="" type="checkbox"/> 23	30
	Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III	Flow < 1 MGD	<input type="checkbox"/> 31	0
	Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
	Flow 5 to 10 MGD	<input type="checkbox"/> 33	20
	Flow > 10 MGD	<input type="checkbox"/> 34	30

SECTION B - Wastewater & Stream Flow Considered

Wastewater Type	Percent Effluent @ Mixing Zone	Code	Points
Type I/III:	< 10%	<input type="checkbox"/> 41	0
	10% to 50%	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10%	<input type="checkbox"/> 51	0
	10% to 50%	<input type="checkbox"/> 52	20
	> 50%	<input type="checkbox"/> 53	30

CODE NUMBER CHECKED FROM SECTION A or B 23
TOTAL POINTS FACTOR 2: 30

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0004996000

FACTOR 3: Conventional Pollutants *(Only when limited by the permit)*

A. Oxygen Demanding Pollutant: (check one) BOD/CBOD COD Other:

			<u>Code</u>	<u>Points</u>
Permit Limits: (check one)	<input type="checkbox"/>	< 100 lbs/day	1	0
	<input type="checkbox"/>	100 to 1000 lbs/day	2	5
	<input type="checkbox"/>	1000 to 3000 lbs/day	3	15
	<input type="checkbox"/>	> 3000 lbs/day	4	20

B. Total Suspended Solids (TSS)

			<u>Code</u>	<u>Points</u>
Permit Limits: (check one)	<input type="checkbox"/>	< 100 lbs/day	1	0
	<input type="checkbox"/>	100 to 1000 lbs/day	2	5
	<input type="checkbox"/>	1000 to 5000 lbs/day	3	15
	<input type="checkbox"/>	> 5000 lbs/day	4	20

C. Nitrogen Pollutant: (check one) Ammonia Other:

		<u>Nitrogen Equivalent</u>	<u>Code</u>	<u>Points</u>
Permit Limits: (check one)	<input type="checkbox"/>	< 300 lbs/day	1	0
	<input type="checkbox"/>	300 to 1000 lbs/day	2	5
	<input type="checkbox"/>	1000 to 3000 lbs/day	3	15
	<input type="checkbox"/>	> 3000 lbs/day	4	20

CODE NUMBER CHECKED

A

-

B

-

C

-

POINTS FACTOR 3:

A

0

B

0

C

0

= 0 Total

FACTOR 4: Public Health Impacts

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

- YES (If yes, check toxicity potential number below)
 NO (If no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column - check one below.)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process wastestreams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

CODE NUMBER CHECKED

TOTAL POINTS FACTOR 4:

-

0

TPDES PERMIT MAJOR/MINOR RATING WORK SHEET

TPDES No.: WQ0004996000

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

Code	Points
<input type="checkbox"/> YES	1 10
<input checked="" type="checkbox"/> NO	2 0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

Code	Points
<input checked="" type="checkbox"/> YES	1 0
<input type="checkbox"/> NO	2 5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

Code	Points
<input type="checkbox"/> YES	1 10
<input checked="" type="checkbox"/> NO	2 0

CODE NUMBER CHECKED

A 2 B 1 C 2
 A 0 + B 0 + C 0 = 0 Total

POINT FACTOR 5:

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from Factor 2): 23

Enter the multiplication factor that corresponds to the flow code: 0.60

Check appropriate facility HPRI Code (from PCS):

	HPRI#	CODE	HPRI Score	Flow Code	Multiplication Factor
<input type="checkbox"/>	1	1	20	11, 31, or 41	0.00
<input type="checkbox"/>	2	2	0	12, 32, or 42	0.05
<input type="checkbox"/>	3	3	30	13, 33, or 43	0.10
<input checked="" type="checkbox"/>	4	4	0	14 or 34	0.15
<input type="checkbox"/>	5	5	0	21 or 51	0.10
				22 or 52	0.30
				23 or 53	0.60
				24	1.00

HPRI code checked: 4

Base Score: (HPRI Score) 0 X (Multiplication Factor) 0.60 = 0 (Total Points)

B. *Additional Points -- NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions)?

Code	Points
<input type="checkbox"/> YES	1 10
<input type="checkbox"/> NO	2 0

C. *Additional Points -- Great Lakes Area of Concern*

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern?

Code	Points
<input type="checkbox"/> YES	1 10
<input type="checkbox"/> NO	2 0

CODE NUMBER CHECKED

A 4 B - C -
 A 0 + B 0 + C 0 = 0 Total

POINT FACTOR 6:

TPDES PERMIT RATING WORK SHEET

TPDES No.: WQ0004996000

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	0
2	Flow/Streamflow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	0
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	30

S1. Is the total score equal to or greater than 80?

- YES - Facility is a major, stop here.
 NO - Facility is NOT a major, proceed to S2.

S2. Do you want the facility to be designated a discretionary major?

- YES - Add 500 points to the score above and provide justification below.
 NO - Stop here

Justification:

Check appropriate classification:

- Major
 Minor
 Discretionary Major

Karen Holligan
Permit Reviewer

512-239-4589
Phone Number

September 21, 2012
Date Reviewed

NEW SOURCE DETERMINATION WORKSHEET

PERMITTEE:	<u>North Texas Municipal Water District</u>
TPDES PERMIT NUMBER:	<u>WQ0004996000</u>
NPDES PERMIT NUMBER:	<u>TX0133671</u>
TYPE OF INDUSTRIAL ACTIVITY:	<u>Water treatment</u>
SIC CODE:	<u>4941</u>
CATEGORICAL GUIDELINES:	<u>N/A</u>

A. NEW SOURCE DETERMINATION - SCREENING

ANSWER EITHER "YES" OR "NO" TO THE FOLLOWING QUESTIONS AND PROCEED AS DIRECTED:

1. Is there an applicable new source performance standard for this facility?
Yes ___ No X If YES, proceed to Item No. 2. If NO proceed to Section B, the facility is not a new source.
2. Was the current production facility in existence prior to the promulgation of the applicable new source performance standard?
Yes ___ No ___ If NO, proceed to Item No. 3. If YES proceed to Section B, the facility is not a new source.
3. This facility MAY be classified as a new source. Additional information will be required to conduct an evaluation and make a final determination. Please refer to 40 CFR 122.29.

B. NEW SOURCE DETERMINATION - DETERMINATION

PLEASE CHECK THE APPROPRIATE DETERMINATION:

- X Facility IS NOT a new source. Determination made via screening in Section A above.
- _____ Facility IS NOT a new source. Determination made via evaluation. Please see attached evaluation.
- _____ Facility IS a new source. Determination made via evaluation. Please see attached evaluation.

Karen Holligan
REVIEWER

August 14, 2012
DATE

	Yes	No	N/A
8. Does this permit authorize ammonia discharges > 4.0 mg/L at the edge of the mixing zone?		X	
9. Does this permit require testing for Whole Effluent Toxicity in accordance with the state's standard practices and implementation plan?		X	
10. If this facility has completed and implemented a Toxicity Reduction Evaluation (TRE), has any subsequent toxicity been identified?			X
11. Does this permit propose to grant a variance request (<i>WQS, FDF, etc.</i>) or does it incorporate a proposed or final approval of a variance request?		X	
12. If a POTW is ≥ 5 MGD, does it have an approved Pretreatment Program?			X
13. Since the last permit issuance, has the POTW had a new Pretreatment Program approved or a Pretreatment Program modification approved?			X
14. Does this permit contain authorization for wet weather related peak-flow discharges?		X	
15. Does this permit include a bypass of any treatment unit or authorize overflows in the system?		X	
16. Does this permit include provisions for effluent trading?		X	
17. Does this permit contain specific issues on which EPA and the state are not in agreement regarding the permitting approach?		X	
18. Is this facility subject to a national effluent limitations guideline? Please specify:		X	
19. Does this permit contain "first-time" implementation of a new federal guideline, policy, regulation, etc.? Please specify:		X	
20. Is this a new facility or an expansion of an existing facility? For an EXISTING facility, if any limits have been removed or are less stringent than those in the previous permit, is it in accordance with the anti-backsliding regulations?	X		X
21. Does this permit incorporate any exceptions to the standards or regulations?		X	
22. Is this a permit modification/amendment? Please specify:		X	

Name: Karen Holligan

Date: August 21, 2012

TOXIC RATING WORKSHEET

TPDES Permit No.:	WQ0004996000		
NPDES Permit No.:	TX0133671		
Permittee:	North Texas Municipal Water District		
Facility:	Leonard Water Treatment Plant		
SIC Codes:	1. 4941	2.	3. 4.
40 CFR Section:	N/A		
Toxic Rating for Facility:	IV		
Permit Writer:	Karen Holligan	Date: August 14, 2012	

CALCULATE TOXIC RATING FOR THE FACILITY

For each outfall listed below, list the percent contribution to the total wastewater flow from the facility and the toxic rating for the outfall.

OUTFALL No.	% Contribution	Toxic Rating	Rating × Percent
001	100	4	400

Toxic Rating for Facility = Total/100 = 4 (round to nearest whole #)

OUTFALL NO.: 001

List waste streams in order of percent contribution to outfall and toxic rating for each waste stream:

Description of Waste Stream	%	Toxic Rating	Rating × Percent
Desalination concentrate	100	4	400

Total 100

Total: 400

Toxic Rating for Outfall = Total/100 = 4 (round to nearest whole #)

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

TO: Yvonna Miramontes, Team Leader
Industrial Permits, Wastewater Permits Section

DATE: August 21, 2012

From: Karen Holligan, Permit Writer
Industrial Permits, Wastewater Permits Section

Subject:

Applicant:	North Texas Municipal Water District				
Plant Name:	North Texas MWD Leonard WTF				
<input checked="" type="checkbox"/> TPDES	<input type="checkbox"/> TCEQ	WQ0004996000		EPA ID. No.	TX0133671
Industrial:	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Major			
Toxic Rating:	4	Stream Segment:	0202		
Received:	June 11, 2012	Administratively Complete:	July 18, 2012		
Assigned:	August 13, 2012	To Team Leader:	August 21, 2012		
Tech Complete:					

ATTACHMENTS:	State-Only	TPDES
New	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Renewal	<input type="checkbox"/>	<input type="checkbox"/>
Major Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Minor Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Staff Initiated Amendment	<input type="checkbox"/>	<input type="checkbox"/>
Fact Sheet	<input type="checkbox"/>	<input type="checkbox"/>
SOB/Technical Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RATIONALE Used to Draft Permit:	
<input type="checkbox"/> Federal Guidelines:	N/A
<input type="checkbox"/> Waste Load Evaluation:	N/A
<input checked="" type="checkbox"/> TCEQ Rules:	30 TAC Chapters 305, 307, and 319
<input type="checkbox"/> Existing Permit(s):	N/A, new permit
<input checked="" type="checkbox"/> Other:	<i>Procedures to Implement the Texas Surface Water Quality Standards, BPJ</i>

Company's Rep: Mr. Robert McCarthy

Phone #: (972) 442-5405

Fax #: (972) 295-6440

Known Opposition: yes If yes, briefly explain: One public meeting request received (Texas); one hearing request received (Oklahoma); and an inquiry from Executive Director of the Oklahoma Water Resources Board and from Oklahoma Department of Environmental Quality

Comments:

FILE LOCATION: I:\WQ\IND\ERC AND REGION PERMITS\WQ0004996000.docx

ATTACHMENT B

TPDES Permit No. WQ0004996000

**APPLICATION by
NORTH TEXAS MUNICIPAL
WATER DISTRICT for TPDES
Permit No. WQ0004996000**

**§
§
§
§**

**BEFORE the
TEXAS COMMISSION
ON ENVIRONMENTAL
QUALITY**

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the application by North Texas Municipal Water District (Applicant) for new Texas Pollutant Discharge Elimination System (TPDES) permit No. WQ0004996000, and on the ED's preliminary decision on the application. As required by Title 30 of the Texas Administrative Code (30 TAC) Section (§) 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk received timely comment letters from Jack Bradshaw, Julia Trigg-Crawford, Duane Gibbs, James Griffin, David Hargrove, Elizabeth Harrington, Steve Holly, Mayfield McCraw, Brenda Schulz, Curtis Schulz, Harold Witcher, Jr., Charles Yarbrough, Carol Paden, P.E. on behalf of the Oklahoma Department of Environmental Quality (ODEQ), and Eric Allmon on behalf of the Sierra Club and Clean Water Action (Sierra Club/CWA). This response also addresses all timely public comments received by the Office of the Chief Clerk on July 17, 2014, at the Public Meeting at the Fannin County Multipurpose Complex in Bonham, Texas, from David Hargrove, Curtis Schulz, and Harold Witcher Jr., whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ is also on our website at <http://www.tceq.texas.gov/>

BACKGROUND

The Applicant applied to the TCEQ for new TPDES Permit No. WQ0004996000 to authorize the discharge of brine residuals (concentrate) from the desalination process from the proposed Leonard Water Treatment Plant (proposed facility) at a daily average flow not to exceed 9.3 million gallons per day (MGD) via Outfall 001.

Description of Facility

The location of the proposed facility will be 700 feet north of the intersection of County Road 4965 and State Highway 78, west of the City of Leonard in Fannin County, Texas.

The proposed facility will perform conventional water treatment (that is, coagulation, filtration, etc.) followed by a desalination process, likely including a pretreatment operation. Some of the conventionally treated water will be bypassed around the desalination process to be blended with desalinated water prior to distribution to the Applicant's treated water system. Currently, there are two options for the final

desalination process, electro dialysis reversal (EDR) and multi-stage reverse osmosis (RO). Because constituent loadings generated from RO processes are expected to be equal to or greater than those generated by the EDR processes, the RO process was used to develop the information related to the desalination concentrate quantity and quality required for this permit application. However, the performance of pilot studies will ultimately determine the best option.

The proposed discharge route for Outfall 001 is to an unnamed tributary; then to the Red River Below Lake Texoma in Segment No. 0202 of the Red River Basin. The TPDES program, which allows discharges of treated effluent into waters in the state, regulates facilities such as the one contemplated in this permitting action and requires the treated effluent to meet the requirements of the Texas Surface Water Quality Standards (TSWQS). The TSWQS is one of the TCEQ's primary mechanisms to protect surface water quality, groundwater, human health, aquatic life, the environment, and the designated uses of receiving waters. Because the discharge point is into the unnamed tributary within 300 feet of Segment No. 0202, the characterization of the discharge is "direct to segment." The TSWQS Implementation Procedures (January 2003)ⁱ define the mixing zone for perennial streams, ditches, and rivers as 300 feet downstream from the point of discharge; therefore, because the discharge is considered direct to segment, the unnamed tributary was not assessed. The designated uses for Segment No. 0202 are primary contact recreation, public water supply, and high aquatic life use.

Domestic wastewater will be routed either to the City of Leonard Publicly Owned Treatment Works or to an on-site sewage facility. All other waste generated at the plant, which may include clarifier blowdown, filter backwash, and backwash from maintenance and pretreatment membranes, is expected to be trucked to a permitted landfill or be disposed of in accordance with 30 TAC Chapter 312, Subchapter F.

In accordance with 30 TAC § 307.5 of the TSWQS and the TSWQS implementation procedures (January 2003)ⁱⁱ, an antidegradation review of the receiving waters was performed. The Tier 1 antidegradation review preliminarily determined that existing water quality uses would not be impaired by this permit action. Numerical and narrative criteria to protect existing uses would be maintained. Additionally, because the Tier 1 review preliminarily determined that the stream reach assessed contains water bodies with exceptional, high, or intermediate aquatic life uses, a Tier 2 antidegradation review was performed. The Tier 2 review preliminarily determined that no significant degradation of water quality is expected in the Red River Below Lake Texoma, which was identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Procedural Background

The TCEQ received the new TPDES application on June 11, 2012, and declared it Administratively Complete on July 18, 2012. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) on August 7, 2012, in the Fannin County Leader. The ED completed the technical review of the application on

November 26, 2013, and prepared a draft permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) on February 11, 2014, in the Fannin County Leader. The Applicant published the Notice of Public Meeting on June 4, 2014 in the Fannin County Leader. On July 17, 2014, at the Fannin County Multipurpose Complex in Bonham, Texas, the TCEQ held a public Meeting. The comment period for this application closed at the close of the public meeting. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

Access to Rules, Laws and Records

All administrative rules: Secretary of State Website: www.sos.state.tx.us
TCEQ rules: Title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac/
(select TAC Viewer on the right, then Title 30 Environmental Quality)
Texas statutes: <http://www.statutes.legis.state.tx.us/>
TCEQ website: <http://www.tceq.texas.gov/> (for downloadable rules in WordPerfect or Adobe PDF formats, select "Rules," then "Current TCEQ Rules," then "Download TCEQ Rules")
Federal rules: Title 40 of the Code of Federal Regulations (C.F.R.): www.epa.gov/epahome/cfr40.htm
Federal environmental laws: www.epa.gov/epahome/laws.htm
Environmental or Citizen Complaints may be filed online at: <http://www.tceq.state.tx.us/enforcement/complaints/index.html>.
Or by sending an email to the following address: cmplaint@TCEQ.state.tx.us.

Commission records for the proposed facility are available for viewing and copying at TCEQ's main office in Austin, located at 12100 Park 35 Circle, Building E, Room 103 (Central Records, for existing or past permits), or Building F, 1st Floor (Office of Chief Clerk, for the current application until final action is taken). The permit application has been available for viewing and copying at the Bonham Public Library, located at 305 East 5th Street in Bonham, Texas, since publication of the NORI. The proposed permit, technical summary, and the ED's preliminary decision have been available for viewing and copying at the same location since publication of the NAPD.

The ED has determined that the proposed permit, if issued, meets all statutory and regulatory requirements and is protective of the environment, water quality, and human health. However, if you would like to file a complaint about the facility concerning its compliance with provisions of its permit or with TCEQ rules, you may contact the Agency at 1-888-777-3186 or you may contact the TCEQ Region 4 Office in Ft. Worth, Texas at (817) 588-5800 to address potential permit violations. If an inspection by the Regional office finds that the facility is out of compliance, the facility may be subject to enforcement actions.

COMMENTS and RESPONSES

COMMENT 1

Jack Bradshaw, whose family farm is on the Red River and uses water from the Red River to irrigate crops, commented that he is concerned that the wastewater may be hazardous to his crops.

Julia Trigg Crawford, who holds a water right authorizing her to use water from Bois d'Arc Creek and backwater from the Red River, commented that she is concerned that the highly salted residual water from the proposed facility will increase the salinity of the Red River and diminish the quality of her irrigation water.

Duane Gibbs, who owns 2,440 acres on the Red River, commented that discharge of desalination concentrate would be severely harmful to farmers who rely on irrigation and groundwater from the unnamed tributary that would receive the desalination concentrate solution.

J. Kenneth Griffin, who is under contract to purchase a 8,000-acre irrigated-farm near S.H. 78 and the Red River Bridge, specifically because it's an irrigated farm, commented that 90 percent of the irrigation water comes from the Red River, which along with nearby water wells has an increased amount of salt in its water because of the drought. Mr. Griffin commented that in addition to the pecan tree orchard, which already must be irrigated using well water rather than Red River water due to its extreme sensitivity to salt, the farm cultivates soybeans, corn, and hay, all of which have limited tolerance to salinity themselves. Mr. Griffin commented that during the summer months, when the dam is releasing a minimal amount of water from Lake Texoma, if the permit were issued, the salt in the river would be highly concentrated when farmers need it the most. Because of the foregoing reasons, Mr. Griffin contests the application and requests consideration of another water body for the application.

David Hargrove, on behalf of Brian McCraw, who is currently utilizing gypsum on his sod plantation to mitigate the issue of salt already present the irrigation water from the Red River, commented that discharge of the desalination concentrate will be severely harmful to farmers who rely on irrigation and groundwater from the unnamed tributary. Mr. Hargrove requests that the TCEQ delay and reconsider the application pending the engagement, completion, and review of impact studies conducted by independent qualified third party professionals. Mr. Hargrove commented that the Applicant should pay for the studies, which should include crop science, engineering, and the environmental and economic impact to affected landowners and the community.

Mayfield McCraw, who owns and operates an 860-plus-acre sod farm in Fannin County, commented that the discharge of desalination concentrate will be severely harmful to farmers, like herself, who rely on irrigation and who have invested substantially in irrigation equipment, pump states, pivot systems, etc. to grow various cash crops.

Brenda Schulz, who's her ranch borders the Red River near Grant, Oklahoma where she grows corn, soybeans, and grass, commented that she is concerned with the quality of

irrigation water for her crops from the Red River and nearby wells after the desalination concentrate is discharged into the Red River, which will no doubt affect her crops.

Elizabeth Harrington, who farms and ranches near the Red River bottom below Lake Texoma, commented that she is concerned releasing the desalination concentrate back into the Red River will be harmful to the farmers who depend on the river for irrigation.

Harold Witcher Jr., who he works for a large retailer of agriculture supplies, commented that he is concerned about releasing higher salinity water back into the Red River, which is already salty, which may kill or damage crops enough to not yield any harvest from the crops. Mr. Witcher commented that his customers who irrigate their crops from the Red River already have to take soil samples on a regular basis to monitor the salt content of their soils, so they can apply amendments to the soil to help flush the salt down through the soil profile if the salt content gets too high. Mr. Witcher commented that he would like to know if the Applicant has performed any studies on this matter.

RESPONSE 1

The ED is unaware of the performance of any studies related to salt absorption in soils.

The TSWQS state, at 30 TAC §307.1, that “[i]t is the policy of this state and the purpose of [the TSWQS] to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, operation of existing industries, and taking into consideration economic development of the state....”

Additionally, the TSWQS, specifically at 30 TAC §307.6(b)(4), state “[w]ater in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals, resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three.”

The TCEQ performed screening calculations for total dissolved solids (TDS), chloride, and sulfate consistent with the TSWQS Implementation Procedures (January 2003)ⁱⁱⁱ to determine the effects the treated effluent may have on the receiving waters.

The screening calculations incorporated segment criteria from the TSWQS background concentrations of TDS, chloride, sulfate in, and the calculated harmonic mean flow of, the Red River (based on historical flow data). Additionally, the screening calculations included information provided in the permit application such as the requested daily average flow and projected concentrations of TDS, chloride, and sulfate in the effluent.

According to the results from the screening calculations, the segment criteria for TDS, chloride, and sulfate will not be exceeded as a result of the proposed discharge and the requirements in proposed permit will be protective of all uses consistent with 30 TAC §307.6(b)(4) and 30 TAC §307.1. Even though the screening calculations indicated that neither effluent limitations nor reporting requirements were needed to meet the TSWQS, based on best professional judgment (BPJ), the ED added monitoring and reporting requirements for TDS, chloride, and sulfate to the proposed permit.

Concerning the potential increase of salinity in the Red River and nearby wells, the TCEQ reviewed data collected in the Red River but was unable to obtain any specific information on salinity in wells near the Red River, and no information has been received by the TCEQ from Mr. Griffin. The TCEQ does not typically measure salinity directly in freshwater bodies, but it does routinely collect conductivity and TDS data, which allow for conversion into salinity values. The TCEQ reviewed all available conductivity and TDS data from four sampling points on the Red River:

- 1) Denison Dam on Lake Texoma in Grayson County: data from 1981-89 and 2007;
- 2) US 75 north of Denison in Grayson County: data from 2011-13;
- 3) State Highway 78 in Fannin County: data from 1973-75 and from 1999-2013; and
- 4) US 271 in Lamar County: data from 1972-2013.

Based on data from these stations, the TCEQ did not observe any increasing trend in salinity values in the Red River. The TCEQ would therefore not expect any increasing trend in salinity in nearby wells (that is, wells that are drilled into the alluvium of the Red River). In addition, the TCEQ does not expect the range of salinities observed to adversely affect most crops irrigated with water from the Red River (for example, Bermuda grass, corn, hay, and soybeans). The TCEQ notes that pecan trees are more sensitive to salinity, and that even though the Red River complies with the TDS criterion in TSWQS at 30 TAC §307.10, the existing salinity levels may already be too high to use for irrigation of pecan orchards. Although the discharge will likely increase salinity levels, with the exception of pecan orchards as noted above, the TCEQ expects the predicted salinities to be within the tolerance levels of most crops.

COMMENT 2

David Hargrove commented that with the possibility of the volume of the discharge being much greater in the summer months, it would definitely affect the McGraws' irrigation of their sod farm.

Curtis Schulz, whose ranch borders the Red River, commented that he is concerned with the volume of salt released into the river in the summer months because a 16 or 20-inch pipe pumping salt brine straight into the river when it's low is going to definitely affect salt levels in the river.

RESPONSE 2

According to flow data from the United States Geologic Survey (USGS) Gage 07331600, located where US Highway 75 crosses the Red River, flow in the Red River Below Lake Texoma actually tends to be greater in the summer months when demand for electricity is higher and releases are more frequent at Denison Dam. According to flow data, the lowest monthly average flows in the Red River occur during October and November. In the same manner, in Lamar County where US Highway 271 crosses the Red River, the low-flow period is typically during September and October. Additional screening was performed consistent with the TSWQS Implementation Procedures (June 2010)^{iv} using the lowest monthly harmonic mean flow of 234 cubic feet per second (cfs), which occurs

in November at USGS Gage 07331600, and re-calculated ambient concentrations of TDS, chloride, and sulfate that include the most recent measurements available. The additional screening again indicated that effluent limitations for TDS, chloride, or sulfate were not necessary to meet the TSWQS.

The TCEQ performs screening of this type whenever the proposed permit comes in for renewal or amendment, and if future screening shows that such limits are necessary, the TCEQ will include them in the permit at that time.

COMMENT 3

Harold Witcher, Jr., commented that Lake Texoma is about eight to nine feet low this year and is not releasing any water into the Red River. Mr. Witcher commented that he would like to know whether the discharge would even mix with the river given that liquids with two different different densities do not mix easily, and instead either stratify, with the lighter of the two on top and the heavier liquid on the bottom, or move with perpendicular boundaries. If stratification does occur, Mr. Witcher comments, the farmers' intake pipes, which are in the deeper water, will collect the higher salinity water. Lastly, Mr. Witcher commented that he would like to know if this has been studied, and how concentrated the salt content would get.

RESPONSE 3

The TCEQ expects the greater river flow, occurring during the summer months, to provide adequate mixing of the discharge with the river water. Unlike lakes or reservoirs, rivers tend to have more turbulent flow, so it is unlikely that the discharge would simply sink to the bottom of the river and form a higher density layer. Because the facility has not been constructed or discharged, there is no actual effluent data for the TCEQ to review. However, as part of its application the applicant provided an estimated TDS concentration of 5,000 mg/L, which is equivalent to a salinity of 4.53 parts per thousand (ppt). The TCEQ performed TDS screening based on this estimate. The proposed permit includes monthly monitoring and reporting of TDS, chloride, and sulfate for the life of the permit, which will provide actual concentrations for TCEQ to use in subsequent permit actions. The proposed permit also requires the applicant to submit analytical results for 90 parameters, including TDS, within 90 days of the initial discharge that is representative of regular operations. If, after review of the results from the analysis, the data indicates monitoring and reporting requirements alone are insufficient to protect water quality, the ED will perform a staff-initiated amendment to include additional effluent limitations in the proposed permit.

COMMENT 4

Harold Witcher, Jr. commented that the proposed permit authorizes a maximum discharge of 18.6 MGD. Mr. Witcher commented that he would like to know if 18.6 MGD is the largest volume of super saline water that will ever be released in a 24-hour period under the proposed permit, and what the resulting dilution factor would be if that amount of super saline water were released into the Red River every day.

RESPONSE 4

At an effluent discharge of 18.6 MGD, under harmonic mean flow conditions in the Red River, the dilution factor would be 17.8, which is equivalent to 5.6% effluent and 94.4% river water. The largest volume for any discharge in a 24-hour period under the proposed permit is 18.6 MGD; however, discharging 18.6 MGD into the Red River every day would result in the Applicant violating its daily average flow limit of 9.3 MGD.

COMMENT 5

Harold Witcher, Jr. commented would like to know whether the applicant will apply for an amendment to increase the discharge amount.

RESPONSE 5

At this time, the TCEQ is unaware whether the applicant will apply for a permit amendment to increase its flow in the future. At the time the TCEQ receives the amendment application, the TCEQ will review the application and establish any effluent limits necessary to protect water quality.

COMMENT 6

Elizabeth Harrington commented that she is concerned that releasing the desalination concentrate back into the Red River will be harmful to aquatic life.

RESPONSE 6

The TCEQ performed screening calculations for TDS, chloride, and sulfate consistent with the TSWQS Implementation Procedures (January 2003)^v to determine the effects the treated effluent may have on the receiving waters.

The screening calculations incorporated segment criteria from the TSWQS background concentrations of TDS, chloride, sulfate in, and the calculated harmonic mean flow of, the Red River (based on historical flow data). Additionally, the screening calculations included information provided in the permit application such as the requested daily average flow and projected concentrations of TDS, chloride, and sulfate in the effluent.

The results of the screening calculations indicated that the segment criteria for TDS, chloride, and sulfate would not be exceeded as a result of the proposed discharge and that the requirements in the proposed permit will be protective of all uses consistent with 30 TAC §307.6(b)(4), which includes aquatic life. The dilution afforded by the relatively large flow in the Red River provides adequate assimilative capacity to ensure that water quality standards in the Red River will not be exceeded and no harmful effects will occur to aquatic life.

COMMENT 7

Elizabeth Harrington, Curtis Schulz, and Charles Michael Yarbrough all commented that they are concerned that releasing the desalination concentrate back into the Red

River will be harmful to livestock that depend on the river for a water source. Mr. Schulz commented that he already keeps his cattle out of the Red River because it is too salty and that he provides them with fresh water to drink.

RESPONSE 7

The TCEQ performed screening calculations for TDS, chloride, and sulfate consistent with the TSWQS Implementation Procedures (January 2003)^{vi} to determine the effects the treated effluent may have on the receiving waters.

The screening calculations incorporated segment criteria from the TSWQS background concentrations of TDS, chloride, sulfate in, and the calculated harmonic mean flow of, the Red River (based on historical flow data). Additionally, the screening calculations included information provided in the permit application such as the requested daily average flow and projected concentrations of TDS, chloride, and sulfate in the effluent.

The results of the screening calculations indicated that the segment criteria for TDS, chloride, and sulfate will not be exceeded as a result of the proposed discharge and that the requirements in the draft permit will be protective of all uses consistent with 30 TAC §307.6(b)(4), which includes livestock. The dilution afforded by the relatively large flow in the Red River provides adequate assimilative capacity to ensure that water quality standards in the Red River will not be exceeded and no harmful effects will occur to livestock.

COMMENT 8

Curtis Schulz and Charles Michael Yarbrough commented that they are concerned about the impact on wildlife from changing freshwater streams into saltwater streams.

RESPONSE 8

The TCEQ performed screening calculations for TDS, chloride, and sulfate consistent with the TSWQS Implementation Procedures (January 2003)^{vii} to determine the effects the treated effluent may have on the receiving waters.

The screening calculations incorporated segment criteria from the TSWQS background concentrations of TDS, chloride, sulfate in, and the calculated harmonic mean flow of, the Red River (based on historical flow data). Additionally, the screening calculations included information provided in the permit application such as the requested daily average flow and projected concentrations of TDS, chloride, and sulfate in the effluent.

The screening calculations indicated that the segment criteria for TDS, chloride, and sulfate will not be exceeded as a result of the proposed discharge and that the requirements in the proposed permit will be protective of all uses consistent with 30 TAC § 307.6(b)(4), including wildlife. The dilution from the relatively large flow of the Red River provides adequate assimilative capacity to ensure water quality standards in the Red River will not be exceeded and no harmful effects will occur to wildlife.

COMMENT 9

Charles Yarbrough commented that he is concerned that the discharge will build up salt concentrations in the creek bed, and then when heavy rains occur, the creek will overflow and spread salt onto farmland, killing or severely hurting crops and pastures.

RESPONSE 9

The TCEQ performed screening calculations to determine what effects TDS (salinity) in the discharge may have on the receiving stream. Based on these calculations, it was determined that the segment criterion would not be exceeded. Additionally, during times of heavy rainfall when the creek overflows into surrounding farmland, stormwater flows from rainwater, which is essentially void of salt, greatly reduce salt concentrations.

COMMENT 10

Curtis and Brenda Schulz, whose ranch borders the Red River near Grant, Oklahoma, commented that the desalination concentrate should not be allowed to be discharged into any fresh water, and especially into water that ultimately runs into the Red River.

RESPONSE 10

The TCEQ performed screening for TDS, chloride, and sulfate to ensure that the projected levels in the effluent would not violate the TSWQS for the Red River at Segment No. 0202. Monitoring and reporting requirements for TDS, chloride, and sulfate have been included in the draft permit based on BPJ in spite of the screening indicating that TDS, chloride, and sulfate criteria would all be met and that neither effluent limitations nor reporting requirements were needed; ,

COMMENT 11

Charles Yarbrough commented that he would like to know whether the treatment process will kill zebra mussel eggs that could come in from Lake Texoma, or whether the discharge will spread zebra mussels.

RESPONSE 11

Studies have shown that zebra mussel eggs and veligers (larva) are incapable of passing through a 50 micron or smaller screen. The desalination process requires the use of filters much smaller than 50 microns. Therefore, transfer of zebra mussels in any life stage in the treated water supply will be eliminated. Because zebra mussels are already found in the source water (Lake Texoma), if any zebra mussel veligers do survive in the desalination plant effluent, they would be discharged to the Red River downstream of Lake Texoma, where they have already been found.

COMMENT 12

Steve Holly commented that he requests the TCEQ deny the permit for this facility or compel the Applicant to provide acceptable compensation for loss of use and value of his home and land, which are located about 500 feet from the planned water treatment plant. He commented that, although the facility will have no environmental impact on his property, it would affect the use, enjoyment, and valuation. Mr. Holly commented that his home and land are for sale, and he has had to disclose the Applicant's plans to build the water treatment plant. Several potential buyers have lost interest based on this information.

RESPONSE 12

The Texas Water Code authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters.^{viii} The water quality permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. The TCEQ does not have jurisdiction under the Texas Water Code or its regulations to address or consider property values or the marketability of nearby properties in its determination of whether or not to issue a water quality permit.

COMMENT 13

Curtis and Brenda Schulz, whose ranch borders the Red River near Grant, Oklahoma, commented that the Red River belongs to Oklahoma, its residents, and the Indian tribes of Oklahoma. Therefore, the State of Texas should not be able to issue any kind of water quality permit concerning the Red River that has the potential, because of concentrated pollutants, to impact water quality, grain crops, or beef cattle that the Schulz's raise next to the Red River.

The ODEQ commented that the Red River is a water of the State of Oklahoma and any discharges to the Red River must comply with Oklahoma's Water Quality Standards and that the permit should be reviewed to ensure that those standards are met. Sierra Club/CWA incorporated this comment by reference in its comment letter.

RESPONSE 13

The United States Environmental Protection Agency (EPA) granted both Oklahoma and Texas delegation of authority to implement the NPDES program, i.e., the OPDES and TPDES programs; therefore, permits issued by the TCEQ and the ODEQ are both designed to protect water quality, although the exact procedures used to arrive at a final permit may vary between the two states. The TCEQ and ODEQ began discussing the application for the proposed permit in August 2012. These discussions included a conference call in November 2012 that included TCEQ, ODEQ, and the Oklahoma Water Resources Board (OWRB). When the Applicant submitted additional information on its predicted silver and cadmium concentrations to the TCEQ in November 2013, the TCEQ forwarded that information to the ODEQ for its review and consideration.

The ED performed Tier 1 and Tier 2 antidegradation reviews as part of the review of the application. The ED determined that with the permit limits in the draft permit, the proposed discharge would not have more than a de minimis effect on water quality in the receiving stream and would be in accordance with the TCEQ Antidegradation Policy.

In addition, the Applicant has agreed to include permit provisions requested by ODEQ. Specifically, the Applicant requested the TCEQ include effluent limitations for TSS in the proposed permit, and on July 31, 2014, the Applicant submitted specific WET testing language to the TCEQ and requested that it be included as Other Requirement No. 8 in the proposed permit; this language has been added as requested.

COMMENT 14

Sierra Club/CWA commented about concern as to whether the proposed discharge will comply not only with the TSWQS but also be protective of the water quality standards and requirements of the downstream states of Oklahoma, Arkansas, and Louisiana. Sierra Club/CWA comments that no adequate showing has been made that the proposed discharge will be protective of the water quality standards of these impacted states.

RESPONSE 14

According to Title 33 of the Code of Federal Regulations (C.F.R.) § 328.3(a)(1) waters such as the Red River, which are capable of being used in interstate commerce, are considered “traditionally navigable waters” or “Waters of the United States.” This means the Federal Clean Water Act and its regulatory programs, such as the National Pollutant Discharge Elimination System, protect the water quality in the Red River. According to 40 C.F.R. § 123.1 individual states can receive delegated authority to implement the NPDES program if the United States Environmental Protection Agency (EPA) determines that the state’s program meets with applicable requirements established by the EPA.

Like Oklahoma and Texas, Arkansas and Louisiana have applied for and received EPA delegation of the authority to implement the NPDES program, i.e., the APDES and LPDES programs. This means that permits issued by the Arkansas Department of Environmental Quality (ADEQ), Louisiana Department of Environmental Quality (LDEQ), ODEQ, and the TCEQ are all designed to protect water quality, although procedures used to arrive at a final permit vary between the states.

Likewise, the EPA approved the TSWQS for the Red River presumably just as it did of the water quality standards of Arkansas, Louisiana, and Oklahoma for the Red River. When TCEQ sent the TSWQS to EPA for approval, Arkansas, Louisiana, and Oklahoma all had an opportunity to comment on the TSWQS.

The TCEQ and ODEQ began discussing the application for the proposed permit in August 2012. These discussions included a conference call in November 2012 that included TCEQ, ODEQ, and the Oklahoma Water Resources Board (OWRB). When the Applicant submitted additional information on its predicted silver and cadmium concentrations to the TCEQ in November 2013, the TCEQ forwarded that information to

the ODEQ for its review and consideration. As a result, in its March 11, 2014 letter, the ODEQ did not comment on the need for effluent limitations for these pollutants.

With regards to the TSWQS, approved by the EPA and applicable to the TPDES program, the TCEQ reviewed the application and assigned appropriate permit limits consistent with the TSWQS Implementation Procedures (January 2003)^{ix} to ensure the permit is consistent with the TSWQS. The TSWQS Implementation Procedures state, "Permits for discharges into classified segments ... or within three miles of any water body that is perennial ... are designed to protect against acute and chronic toxicity and to protect human health."^x Arkansas and Louisiana are well outside the discharge's zone of impact zone to have any measurable effect on water quality in Arkansas or Louisiana and no information has been received by the TCEQ from the ADEQ, LDEQ, or from Sierra Club/CWA indicating otherwise.

The EPA approved the TSWQS for the Red River presumably just as it did of the water quality standards of Arkansas, Louisiana, and Oklahoma for the Red River. Additionally, when the TCEQ sent the TSWQS to the EPA for approval, neighboring states also had the opportunity to comment on the TSWQS.

COMMENT 15

ODEQ noted that the permit does not include whole effluent toxicity (WET) testing, and stated that discharges of wastewater with high concentrations of TDS pose a toxicity risk to aquatic communities. ODEQ stated that, based on its screening, the facility would qualify as an EPA major facility, meaning that it must perform WET testing. Sierra Club/CWA incorporated this comment by reference in its comment letter and also commented that the permit does not include adequate bio-monitoring requirements.

RESPONSE 15

According to the TSWQS Implementation Procedures (January 2003), which have EPA approval for implementing WET testing procedures in permits,^{xi} the TCEQ requires WET testing of EPA-classified major industrial dischargers with continuous-flow outfalls and other industrial discharges with continuous-flow outfalls with the potential to exert toxicity in the receiving water. As a historical practice, the TCEQ has not required WET testing of this type of effluent. The ED evaluated whether the proposed facility should be re-classified as a major. Factors that are considered in making this evaluation include the toxic pollutant potential, flow volume, effluent limitations on conventional pollutants, potential public health impacts, water quality factors (water quality based effluent limitations, water body impairments, reasonable potential for effluent to violate water quality standards based on whole effluent toxicity), and proximity to near coastal waters. Based on the evaluation, the ED does not expect the concentrations of TDS, chloride, and sulfate at the critical dilution of 9% to be toxic to aquatic life in the Red River because are all less than the segment criteria. Therefore, the ED concludes that an EPA-classification of minor is appropriate.

On July 31, 2014, the Applicant submitted specific WET testing language to the TCEQ and requested that it be included as Other Requirement No. 8 in the proposed permit; the ED added this language as requested.

COMMENT 16

ODEQ commented that the permit specifies a pH range of 6.0 to 9.0 standard units that does not comply with Oklahoma's pH standards of 6.5 to 9.0 standard units. ODEQ commented that permit needs revisions to reflect this range of acceptable pH values. Sierra Club/CWA incorporated this comment by reference in its comment letter.

RESPONSE 16

As discussed in the Statement of Basis/Technical Summary for the proposed permit, a pH limit of between 6.0-9.0 standard units was established in the proposed permit based on BPJ. A screening calculation was also performed to evaluate whether this pH limitation would ensure that the pH criteria of 6.5-9.0 standard units in Segment No. 0202 would be maintained at the edge of the mixing zone. The screening predicts that the pH limitation of 6.0-9.0 standard units in the proposed permit will maintain the pH at the edge of the mixing zone in the Red River within the range of 6.5-9.0 standard units, which complies with both the TCEQ's and the ODEQ's water quality standards.

COMMENT 17

ODEQ commented that it affords protection to the Agriculture Beneficial use, detailed in the Oklahoma Water Quality Standards, through the minerals criteria ODEQ has in place. ODEQ commented that the permit must comply with the requirements of Oklahoma Administrative Code (OAC) §785:45-5-13 with respect to chloride, sulfate, and TDS concentrations in the effluent discharge. Sierra Club/CWA incorporated this comment by reference in its comment letter.

RESPONSE 17

According to the Oklahoma Administrative Code § 785: 45-5-13, general criteria for chloride, sulfate, and TDS for the protection of the Agriculture beneficial use are found in Appendix F of OAC Chapter 785. Appendix F does not appear to specify any criteria for the referenced portion of the Red River, Segment 410700. The TCEQ performed screening for TDS, chloride, and sulfate to ensure that the projected levels in the effluent would not violate the TSWQS for the Red River Below Lake Texoma, Segment No. 0202. The screening calculations indicated that neither effluent limitations nor reporting requirements were needed; however, monitoring and reporting requirements for TDS, chloride, and sulfate have been included in the draft permit based on BPJ.

COMMENT 18

Sierra Club/CWA commented that the proposed permit will discharge contaminants including dissolved solids, suspended solids, chloride, sulfate, toxic metals, and that the impact of these authorized discharges upon the receiving and downstream waters has

not been shown to be *de minimis*. Sierra Club/CWA commented that it has not been shown that the proposed discharge is necessary for important economic or social development. Sierra Club/CWA stated that likewise, the pH impacts of the discharge have not been shown either. Thus, considering that the receiving waters are fishable/swimmable, Sierra Club/CWA comments that issuance of the permit has not been shown to comply with the requirements of TCEQ's Tier 2 antidegradation review set forth at 30 TAC § 307.5(b)(2).

RESPONSE 18

Using information provided in the application, ambient water quality data from TCEQ's Surface Water Quality Monitoring Information Systems database, historical flow data, and screening calculations, the TCEQ performed both Tier 1 and Tier 2 Antidegradation Reviews consistent with 30 TAC § 307.5(b)(2) and the TSWQS Implementation Procedures (January 2003)^{xii}. The Tier 1 and Tier 2 antidegradation reviews determined that with the permit limits in the draft permit, the proposed discharge would not have more than a *de minimis* effect on water quality in the receiving stream and would be in accordance with the TCEQ Antidegradation Policy.

According to the TCEQ's Tier 2 antidegradation policy, activities in waters that exceed fishable/swimmable quality that are subject to regulation cannot cause degradation of water quality unless it can be shown to the TCEQ's satisfaction that the lower water quality is necessary for important economic or social development.^{xiii} This means that if the Tier 2 antidegradation review determines that activities subject to regulation in waters exceeding fishable/swimmable quality will result in degradation of water quality, the TSWQS prohibit those activities unless demonstrated to the satisfaction of the TCEQ that the degradation is necessary for important economic or social development.

TCEQ's Tier 2 antidegradation policy defines "degradation" as "a lowering of water quality by more than a *de minimis* extent, but not to the extent that an existing use is impaired."^{xiv} As mentioned above, the Tier 2 antidegradation review preliminarily determined that no significant degradation of water quality is expected in the Red River Below Lake Texoma, which was identified as having high aquatic life use. Therefore, a showing that the proposed discharge is necessary for important economic or social development is not required for the ED to issue the proposed permit.

COMMENT 19

Sierra Club/CWA noted that the segment receiving the effluent shortly downstream of the discharge (Red River Below Lake Texoma) has designated uses including primary contact recreation, high aquatic life, and public water supply. Sierra Club/CWA commented that the Applicant has not made an adequate showing that these uses will be protected, nor has the Applicant made a showing that the general criteria of 30 TAC § 307.4 have been met.

RESPONSE 19

The TSWQS Implementation Procedures (January 2003)^{xv} set forth the procedures necessary to ensure that the general criteria (including designated uses) for water bodies established in 30 TAC § 307.4 of the TSWQS are met. The TCEQ followed these procedures and established appropriate permit limits to ensure that the general criteria in 30 TAC § 307.4, including designated uses, will be met.

COMMENT 20

Sierra Club/CWA incorporated by reference all comments submitted with regard to the application by the United States Environmental Protection Agency.

RESPONSE 20

The TCEQ is uncertain of what comments the Sierra Club/CWA is referring to when it stated that it incorporated by reference the comments from the United States Environmental Protection Agency. The TCEQ sent the proposed permit to the United States Environmental Protection Agency - Region 6 for review on January 13, 2014. In a letter dated February 21, 2014, EPA Region 6, pursuant to its statutory discretion, declined to review the draft permit and made no comments.

COMMENT 21

Sierra Club/CWA commented that a sufficient showing has not been made that the permit contains all appropriate and adequate technology-based effluent limits.

RESPONSE 21

Regulations promulgated in 40 C.F.R. require technology-based limitations be placed in wastewater discharge permits based on effluent limitation guidelines, where applicable, or on BPJ in the absence of guidelines. No federal effluent limitation guidelines apply to the discharge of desalination concentrate from a potable water treatment plant. A pH limit of between 6.0-9.0 standard units was established in the proposed permit based on BPJ. Screening calculations were performed to evaluate whether this pH limitation would also ensure that the Segment No. 0202 pH criteria of 6.5-9.0 standard units would be maintained at the edge of the mixing zone. The screening predicted that this pH limitation will be adequate. The screening calculations were included in the Statement of Basis/Technical Summary for the proposed permit. In addition, the Applicant requested that the TCEQ include effluent limitations on total suspended solids, which are also considered to be technology-based effluent limits.

COMMENT 22

Sierra Club/CWA commented that the Applicant has not shown that the permit adequately addresses potential impacts of toxic metals.

RESPONSE 22

The Applicant included estimates of toxic metal concentrations in the effluent in its application. To estimate the quality of the desalination concentrate stream generated by a multi-stage RO process, the Applicant obtained data on the raw water quality in Lake Texoma, and conservatively assumed 100% removal of all metals in the RO process (i.e., that all of the metals would be present in the desalination concentrate). The TCEQ screened the estimated concentrations against acute and chronic aquatic life toxic criteria and human health toxic criteria. Based on the initial screening, the TCEQ considered adding effluent limitations for total cadmium and total silver to the proposed permit. The Applicant submitted additional information and analysis on November 21, 2013, indicating that the average concentration of both cadmium and silver was expected to be below the levels that would trigger effluent limitations or monitoring. The TCEQ has included Other Requirement No. 6 in the proposed permit, which requires the Applicant to perform analysis on four separate effluent samples, collected a minimum of one week apart. Parameters to be included in the analysis are listed in Attachment 1, Tables 1 and 2, of the proposed permit, and include toxic metals. The proposed permit requires the applicant to submit these analytical results within 90 days of initial discharge that is representative of regular operations. If, after review of the results from the analysis, the data indicates monitoring and reporting requirements alone are insufficient to protect water quality, the ED will perform a staff-initiated amendment to include additional effluent limitations in the proposed permit.

COMMENT 23

Sierra Club/CWA commented that the permit monitoring requirements are inadequate to comply with applicable technology-based and water quality-based requirements.

RESPONSE 23

The proposed permit includes effluent limitations for flow, total suspended solids (TSS), and pH. The proposed permit also includes monitoring and reporting requirements for TDS, chloride, and sulfate. The proposed permit specifies that flow must be measured continuously, which is the highest frequency of monitoring possible. The proposed permit requires weekly monitoring of TSS, which is consistent with the TCEQ's *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998. TCEQ performed screening for TDS, chloride, and sulfate to ensure that the projected levels in the effluent would not violate the TSWQS for the Red River, Segment No. 0202. The screening indicated that neither effluent limitations nor reporting requirements were needed; however, monitoring and reporting requirements for TDS, chloride, and sulfate have been included in the draft permit based on BPJ. The monthly monitoring and reporting requirements will provide data that can be used to evaluate the need for effluent limitations during future permit actions. In addition, the TCEQ included Other Requirement No. 6 in the proposed permit, which requires the Applicant to analyze four separate effluent samples, collected a minimum of one week apart. Parameters to be included in the analysis are listed in Attachment 1, Tables 1 and

2, of the proposed permit. The proposed permit requires the applicant to submit these analytical results within 90 days of initial discharge that is representative of regular operations. If, after review of the results from the analysis, the data indicates monitoring and reporting requirements alone are insufficient to protect water quality, the ED will perform a staff-initiated amendment to include additional effluent limitations in the proposed permit.

CHANGES MADE TO THE PERMIT IN RESPONSE TO COMMENT

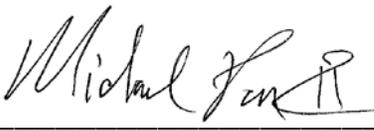
- Pursuant to the comments made by the ODEQ on July 31, 2014, the Applicant submitted specific WET testing language to the TCEQ and requested that it be included as Other Requirement No. 8 in the proposed permit; this language has been added as requested.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E., Executive Director

Robert Martinez, Environmental Law
Division Director

By  _____

Michael T. Parr II, *Staff Attorney*
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Austin, Texas 78711-3087
Telephone No. 512-239-0611
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REPRESENTING THE EXECUTIVE
DIRECTOR OF THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on September 25, 2014, the Executive Director's Response to Public Comment for Permit No. WQ0004996000 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.



Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936

-
- i The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The review of the discharge route for this proposed permit was conducted prior to July 12, 2013 and was done consistent with the January 2003 Implementation Procedures.
 - ii The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The antidegradation review conducted on the application for this proposed permit was conducted prior to July 12, 2013 and was done consistent with the January 2003 Implementation Procedures.
 - iii The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The TDS, chloride, and sulfate screening calculations conducted on the application for this proposed permit were conducted prior to July 12, 2013 and were done consistent with the January 2003 Implementation Procedures.
 - iv The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013, with the following exceptions: whole effluent toxicity, dechlorination requirements for minor domestic facilities, and variances. The TDS, chloride, and sulfate screening calculations conducted in response to this comment were conducted after July 12, 2013 and were done consistent with the June 2010 Implementation Procedures. The TDS, chloride, and sulfate screening procedures are essentially the same in both the January 2003 and June 2010 Implementation Procedures.
 - v See endnote iii.
 - vi See endnote iii.
 - vii See endnote iii.
 - viii Tex. Water Code Ann. § 26.027 (West 2013).
 - ix The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013.
 - x *Procedures to Implement the Texas Surface Water Quality Standards* 51 (RG-194 January 2003).
 - xi The EPA approved the majority of the June 2010 Implementation Procedures on July 12, 2013. As of this writing, the WET procedures are still not approved, and the TCEQ uses the January 2003 Implementation Procedures for WET.
 - xii See endnote ii.
 - xiii Tex. Admin. Code § 307.5 (b)(2) (2013).
 - xiv Tex. Admin. Code § 307.5 (b)(2) (2013).
 - xv See endnote xxxi.

ATTACHMENT C

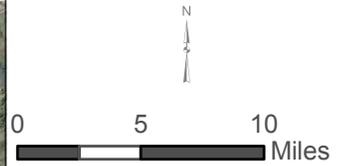
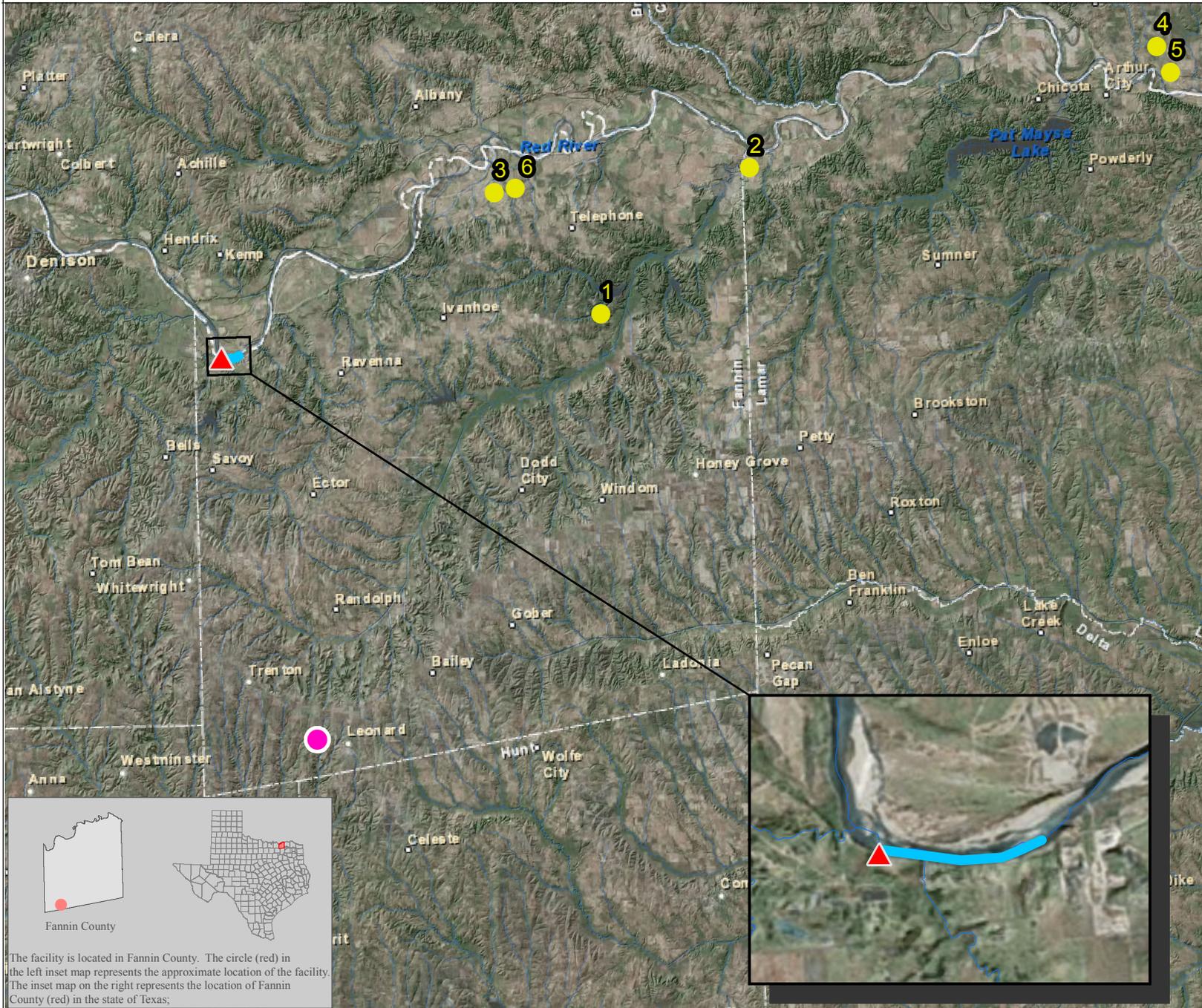
NTMWD-WQ0004996000

Map Requested by TCEQ Office of Legal Services
for Commissioners' Agenda



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

Date: 1/5/2015



- Facility
- ▲ Outfall
- ~~~~~ 1 mile downstream discharge route
- Requestor Location (approximate)

- 1 Witcher
- 2 Crawford
- 3 Gibbs
- 4 Bradshaw
- 5 Schulz
- 6 McCraw

Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information from the applicant and the requestor information from the requestor. The background imagery of this map is from the current Environmental Systems Research Institute (ESRI) map service, as of the date of this map.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.

The facility is located in Fannin County. The circle (red) in the left inset map represents the approximate location of the facility. The inset map on the right represents the location of Fannin County (red) in the state of Texas;