

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Final Documents Team Leader
Chief Clerk's Office

DATE: May 12, 2023

From: Michael Parr
Staff Attorney
Environmental Law Division

Subject: Backup Filed for the ED's Response to Hearing Requests

Applicant:	North Texas Municipal Water District
Proposed Permit No.:	WQ0005323000
Program:	Water
Docket No.:	2023-0529-SLG

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

- Technical Summary & Proposed Permit
- The Compliance History Report

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: North Texas Municipal Water District

TCEQ Permit No.: WQ0005323000

Regulated Activity: Water Treatment Plant Residuals Disposal via Monofill

Type of Application: Permit

Request: New

Authority: Texas Water Code §26.027; 30 Texas Administrative Code (TAC) Chapters 281, 305, 312, and Texas Health and Safety Code (THSC) §361.121; and Commission policies.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The proposed permit will expire five years from the date of issuance in accordance with 30 TAC Chapter 312, and THSC section 361.121.

REASON FOR PROJECT PROPOSED

North Texas Municipal Water District has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Permit No. WQ0005323000 to authorize the processing, storage and disposal of water treatment plant residuals on an approximately 310-acre monofill.

PROJECT DESCRIPTION AND LOCATION

The water treatment plant residuals disposal site will be located approximately 0.25 mile north of the intersection of County Road 644 and Farm-to-Market Road 547, in Collin County, Texas 75442. The water treatment plant residuals disposal site will be located in the drainage basin of Lake Tawakoni in Segment No. 0507 of the Sabine River Basin.

PROPOSED PERMIT CONDITIONS

Provisions are included in the draft permit according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal and Transportation. The draft permit will authorize the processing, storage, and disposal of water treatment plant residuals at a maximum rate of 100,000 dry tons per year on 310 acres of land used as a monofill. Processing will involve dewatering of the water treatment plant residuals prior to disposal.

SUMMARY OF CHANGES FROM APPLICATION

By request of the applicant, the maximum disposal rate has been increased from 51,000 tons per year to 100,000 tons per year.

SUMMARY OF CHANGES FROM EXISTING PERMIT

None. This is a new permit.

BASIS FOR PROPOSED DRAFT PERMIT

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

Application submitted on May 19, 2021 and additional information submitted on August 12, 2021, February 1, 2022 and April 20, 2022.

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.

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 Brian Sierant at (512) 239-1375.

Brian Sierant

Brian Sierant, Biosolids Work Leader
Land Application Team
Water Quality Assessments Section (MC150)

4/26/2022 (Revised)

Date



PERMIT NO. WQ0005323000

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

PERMIT TO DISPOSE OF WATER TREATMENT PLANT RESIDUALS

under provisions of Chapter 26 of the Texas Water Code and under provision of Texas Health & Safety Code Ann. Chapter 361 (Vernon) and Chapter 312 of the Texas Administrative Code.

I. PERMITTEE

North Texas Municipal Water District
P.O. Box 2408
Wylie, Texas 75098

II. AUTHORIZATION

Disposal via Monofill of Water Treatment Plant Residuals. (SIC Code 4941).

III. GENERAL DESCRIPTION AND LOCATION OF SITE

Description: The North Texas Municipal Water District Water Treatment Plant Residuals Disposal Monofill consists of a 310 acre monofill that is authorized for the disposal of dewatered water treatment plant residuals at a maximum rate of 100,000 dry tons per year.

Location: The water treatment plant residuals disposal site is located approximately 0.25 mile north of the intersection of County Road 644 and Farm-to-Market Road 547, in Collin County, Texas 75442. (See Attachment A).

Drainage Basin: The water treatment plant residuals disposal site is located in the drainage basin of Lake Tawakoni in Segment No. 0507 of the Sabine River Basin.

The permittee is authorized to process, store, and dispose of water treatment plant residuals in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules of the Commission and other Orders of the Commission and laws of the State of Texas. Nothing in this permit exempts the permittee from compliance with applicable rules and regulations of the TCEQ. The permittee must handle and dispose of the residuals in accordance with all applicable state and federal regulations to protect public health and the environment. This permit does not authorize any invasion of personal rights nor any violation of federal, state or local laws or regulations.

This permit and the authorization contained herein shall expire at midnight five years from the date issued.

ISSUED DATE:

For the Commission

IV. GENERAL PROVISIONS

The permittee is authorized to process, store and dispose of water treatment plant residuals in accordance with 30 Texas Administrative Code (TAC) Chapter 312 and all other applicable state and federal regulations to protect public health and the environment from any reasonable anticipated adverse effects due to any toxic pollutants which may be present.

A. General Requirements

1. No hazardous, toxic, radioactive, regulated asbestos, or any industrial solid waste, will be accepted, stored, processed, or disposed of at this site.
2. The permittee shall give 180 days prior notice to the Executive Director of the TCEQ of any change planned in the water treatment plant residuals disposal practice or prior to start of any construction which would decrease or increase the disposal capacity of the solid waste disposal facility.
3. Water treatment plant residuals placed on an active water treatment plant residuals disposal unit shall not contaminate an aquifer. All necessary steps to protect groundwater from contamination by residuals or liquids associated with the residuals processing and disposal operation shall be taken.
4. Equipment capable of managing storm water runoff on the monofill site following a 25-year, 24-hour rainfall event shall be available for use at the site at all times.
5. Waste control facilities shall be isolated from storm water run-on by berms or diversion terraces. The permittee shall not take any action which will increase the volume of rainfall runoff onto the property of adjacent landowners without the permission of such landowners.
6. All water treatment plant residuals shall be disposed of in a manner such that contamination of surface and ground waters is prevented and such that nuisance conditions (such as insect infestations or objectionable odors) are controlled. Any areas on which water treatment plant residuals are stockpiled shall be isolated by dikes, terraces, and terrain to prevent the discharge of any contaminated runoff into waters in the State of Texas.
7. Off-site discharge of recovered liquids from the disposal area is not authorized by this permit. The facility shall be managed so as to prevent ponding of process generated liquids on the ground, prevent contamination of ground or surface waters and to prevent the occurrence of nuisance conditions.
8. All facilities including ponds, pipes, ditches, and pumps shall be utilized and maintained as necessary in order to prevent any unauthorized discharge to waters in the State.
9. Water retention facilities for storage of runoff that has not come into contact with waste do not require lining to control seepage. Water retention facilities for storage of water that have come into contact with water treatment residuals shall be lined to control seepage in one of the following manners:
 - a. In-situ or placed and compacted clay soils meeting the following requirements:
 - i. more than or equal to 30% passing a No. 200 mesh sieve;

- ii. liquid limit greater than 30%;
 - iii. plasticity index greater than 15;
 - iv. a minimum thickness of 12 inches;
 - v. permeability equal to or less than 1×10^{-7} cm/sec; and
 - vi. soil compaction will be 95% standard proctor at optimum moisture content.
- b. Membrane lining with a minimum thickness of 20 mils, and an underdrain leak detection system.
 - c. An alternate method of pond lining may be utilized with prior approval from the Executive Director.

The permittee shall furnish certification by a Professional Engineer licensed in Texas that any pond lining for ponds constructed after the issuance date of this permit meets the appropriate criteria prior to utilization. The certification shall be sent to the TCEQ Land Application Team (MC 150) and the TCEQ Regional Office (MC Region 4).

B. Management Practices

1. No water treatment plant residuals failing the Toxicity Characteristic Leaching Procedure (TCLP) test shall be transported to this site.
2. All water treatment plant residuals disposal operations shall be operated so as to minimize odor and nuisance conditions and prevent contamination of ground or surface waters.
3. The permittee shall maintain a minimum of a 150-foot buffer zone from all private drinking water wells, and a minimum buffer distance of 500 feet shall be maintained from public water supply wells and the water treatment plant residuals disposal areas.
4. Water treatment plant residuals shall not be placed on an active residuals disposal unit if it is likely to adversely affect a threatened or endangered species of plant, fish or wildlife listed under the Endangered Species Act, §4, or its designated critical habitat.
5. An active water treatment plant residuals disposal unit shall not restrict the flow of the 100-year flood.
6. An active water treatment plant residuals disposal unit shall not be located in an unstable area.
7. An active water treatment plant residuals disposal unit shall not be located in a wetland except as provided in permit issued pursuant to the federal Clean Water Act §402 or §404.
8. Runoff from an active water treatment plant residuals disposal unit shall be collected and disposed in accordance with the applicable requirements. The runoff collection system for an active water treatment plant residuals disposal unit shall have the capacity to handle runoff from a 25-year, 24-hour rainfall event.
9. A food crop, feed crop, or a fiber crop shall not be grown on an active water treatment plant residuals disposal unit.
10. Animals shall not graze on the active water treatment plant residuals disposal unit.

11. Public access to a disposal unit shall be restricted during the period that the disposal site contains an active residuals disposal unit and for a period of three years after the last active water treatment plant residuals disposal unit in the disposal site closes. The facility entrances will be closed and locked outside of normal operating hours. The perimeter fence shall be monitored and repaired as needed to maintain site security. Waste transporters will be restricted to the designated unloading areas only.
12. Water treatment plant residuals placed on an active water treatment plant residuals disposal unit shall not contaminate an aquifer.
13. No water treatment plant residuals with a polychlorinated biphenyl (PCB) concentration of greater than or equal to 50 mg/kg (dry weight basis) shall be transported to this facility.

C. Testing Requirements

TCLP Test - Once during the term of the permit

Water treatment plant residuals shall be tested in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix TCLP or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1.

PCBs - Once during the term of the permit

Water treatment plant residuals shall be tested in accordance with the method specified in 40 CFR Part 136, pertaining to PCBs or other method that receives the prior approval of the TCEQ.

D. Record Keeping Requirements

The permittee shall develop and keep records of all water treatment plant residuals disposal activities and shall be made available to TCEQ upon request. Such records will include the following information:

1. the results of TCLP and PCB testing performed in accordance with Provision IV.C;
2. a description of how the management practices listed above in IV.B. are being met;
3. dates of disposal and quantities (in dry tons) of residuals from each source.

The above records shall be maintained on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for five years or for the duration of the permit, whichever is longer.

E. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (Region 4) and to the Water Quality Land Application Team (MC 150) of the Water Quality Division, by September 30th (report period September 1st of previous year through August 31st of current year) of each year the "Annual Disposal Summary Report Form" (Attachment C) and the following information:

1. the frequency of monitoring listed in Provision IV.C which applies to the permittee;
2. results of tests performed for TCLP and PCBs in accordance with Provision IV.C;
3. dates of disposal and quantities (dry tons) of water treatment plant residuals from each source;
4. verification statement listed in 30 TAC §312.67(a)(2)(B) shall be attached to the annual reporting form; and
5. continuing evidence of financial responsibility to assure the commission that the responsible owner or operator has sufficient assets to properly operate the site and to provide proper closure and post-closure. This assurance for the proper operation of the site may be in the form of performance bonds, letters of credit from recognized financial institutions, trust funds, or insurance. Unless otherwise notified by the TCEQ of the need for additional documentation, the permittee is not required to provide further evidence of financial responsibility pertaining to this permit.

F. Closure Requirements

The permittee shall submit a written "closure and post closure plan" to the Water Quality Land Application Team (MC 150) of the Water Quality Division, for approval, at least 180 days prior to the anticipated date of the monofill closure. Closure is the act of the permanent removal from service of the monofill regulated by this permit.

V. FACILITY DESIGN, CONSTRUCTION, AND OPERATION

A. General Design and Construction

1. Facility design, construction, and operation must comply with this permit, the TCEQ rules, and be in accordance with the site development plan for the construction and the operation approved herein.
2. The entire waste control facility shall be designed, constructed, operated, and maintained to prevent the release and migration of any waste or contamination, and to prevent inundation of and discharge from the areas surrounding the facility components. Each receiving and disposal area shall be provided with a containment system which will collect spills and incident precipitation in such a manner as to:
 - a. preclude the release of any contaminated runoff, spills, or precipitation;
 - b. prevent washout of any waste by a 100-year storm; and
 - c. prevent run-on into the disposal area.
3. All recovered water shall be managed as specified in General Provision IV.A.4.
4. Final Cover: At a minimum, final cover shall consist of two feet of soil/clay. The coefficient of permeability of the final cover shall not exceed that of the liner.

B. General Operational Requirements

The site and monofill shall be managed and operated in accordance with the most recent and applicable rules adopted by the Commission relating to water treatment plant residuals monofills.

VI. STANDARD PROVISIONS

- A. This permit is granted in accordance with the Texas Water Code and the rules and other Orders of the Commission and the laws of the State of Texas.
- B. Unless specified otherwise, any noncompliance which may endanger human health or safety, or the environment must be reported to the TCEQ. Report of such information must be provided orally or by facsimile transmission (FAX) to the TCEQ Regional Office (MC Region 4) within 24 hours of becoming aware of the noncompliance. A written submission of such information must also be provided to the TCEQ Regional Office (MC Region 4) and to the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission must contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- C. Acceptance of this permit constitutes an acknowledgment and agreement that the permittee will comply with all the terms, provisions, conditions, limitations and restrictions embodied in this permit and with the rules and other Orders of the Commission and the laws of the State of Texas. Agreement is a condition precedent to the granting of this permit.
- D. Prior to any transfer of this permit, Commission approval must be obtained. The Commission should be notified, in writing, of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Water Quality Land Application Team (MC 150).
- E. 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 must control.
- F. The permittee is subject to the provisions of 30 TAC Section 305.125.
- G. Any proposed site changes, addition of land area, or expansion in the capacity which have not been addressed by the terms of this permit must be authorized in accordance with the TCEQ permit amendment or modification rules 30 TAC Chapter 305.
- H. According to 30 TAC §305.125(10) inspection and entry must be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28 and the Texas Solid Waste Disposal Act.

VII. SPECIAL PROVISIONS

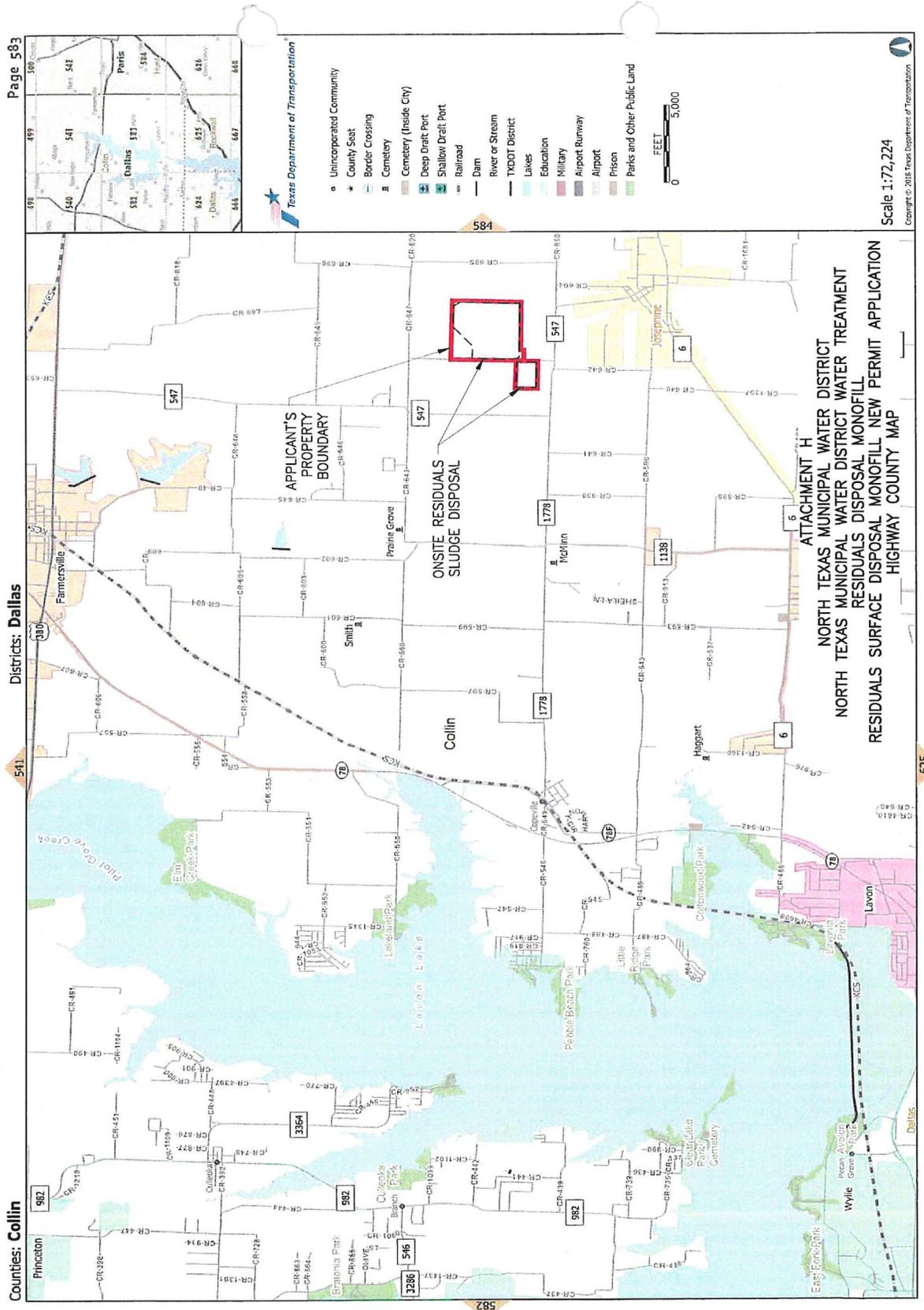
- A. The permittee is authorized to process, store and dispose of water treatment plant residuals at a maximum rate of 100,000 dry tons per year within the 310 acre monofill indicated on Attachment B. No wastewater treatment plant sludge or biosolids, hazardous, toxic, radioactive, regulated asbestos, or any industrial solid waste shall be accepted, stored, processed, or disposed of within the disposal unit.
- B. Prior to the commencement of the disposal of the water treatment plant residuals, the permittee shall complete the installation of the monofill liner which meets the definition and requirements of 30 TAC §312.8(61). The installation process must use industry-standard quality assurance and quality control methods. The soil or synthetic material must have a hydraulic conductivity of 1×10^{-7} centimeters per second (cm/sec) or less. Soil liners must consist of suitable material along the sides and bottom of the disposal areas, with more than 30% passing a number 200 mesh sieve, a liquid limit greater than 30%; a plasticity index greater than 15, compaction greater than 95% Standard Proctor at optimum moisture content, and shall be at least two feet thick placed in six-inch lifts, or provide an equivalent level of groundwater protection.

The permittee shall furnish certification by a Texas Licensed Professional Engineer that the completed lining meets these requirements prior to use of the water treatment plant residuals monofill. The certification shall be submitted to the TCEQ Regional Office (MC Region 4), Water Quality Assessment Team (MC 150) and Plans and Specifications Review Team (MC 148) of the Water Quality Division. A copy of the liner certification shall be available at the monofill site for inspection by authorized representatives of the TCEQ.

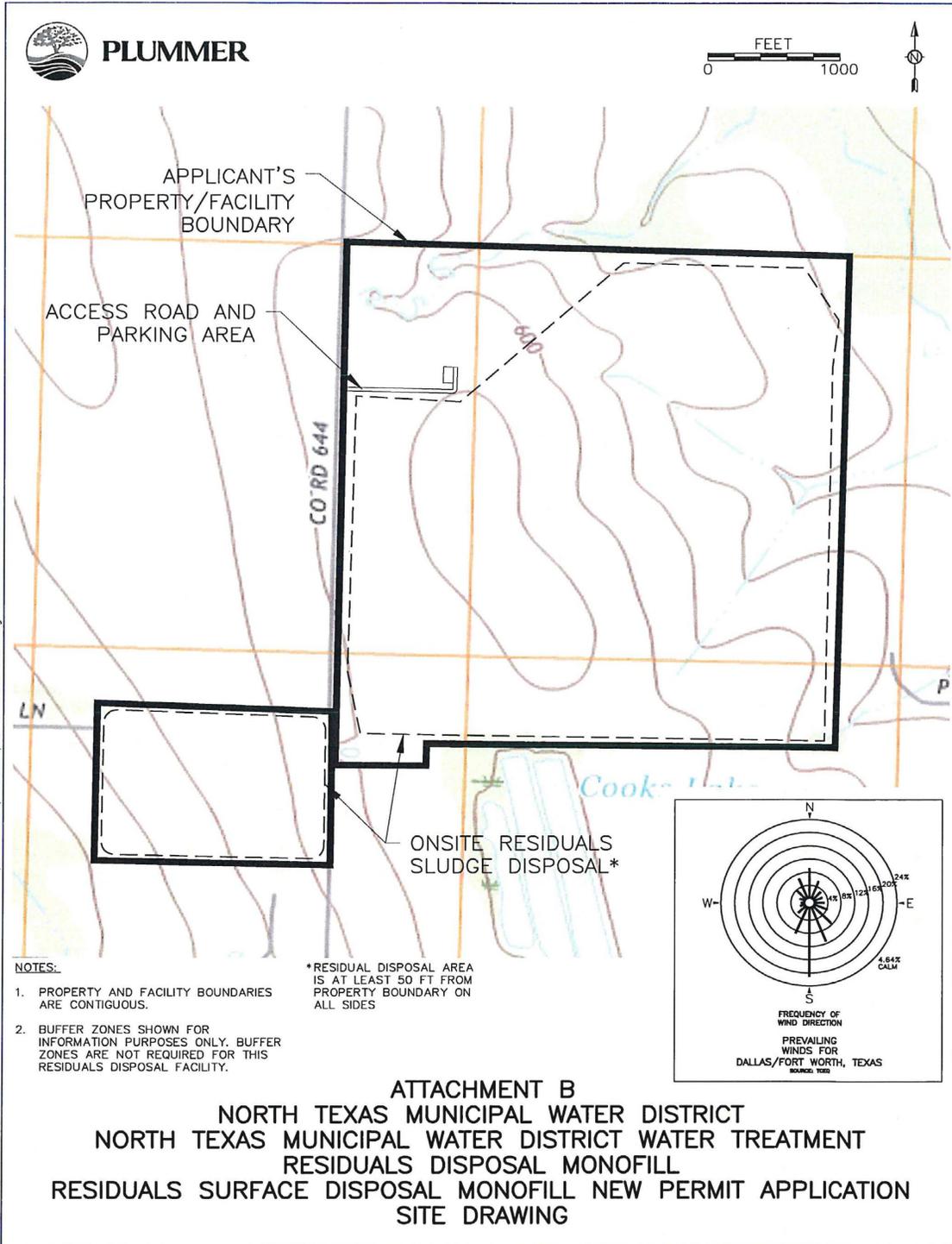
- C. Containment structures shall be isolated from stormwater run-on by berms or diversion terraces. The permittee shall not take any action which will increase the volume of rainfall runoff onto the property of adjacent landowners without the permission of such landowners.
- D. Water treatment plant residuals deposited in the waste control facilities shall be disposed of so that no contamination of surface waters can occur. The water treatment plant residuals shall be disposed of in a manner to prevent nuisance conditions and to prevent the contamination of surface and ground waters. Any areas on which the water treatment plant residuals is stockpiled shall be isolated by dikes, terraces, or terrain to prevent the discharge of any contaminated runoff into waters in the State of Texas.
- E. To prevent erosion conditions from occurring, vegetative cover shall be maintained year-round on all areas within the monofill that have reached the maximum elevation of disposal.
- F. The permittee shall give 180 days prior notice to the Executive Director of any change planned in the disposal practice.
- G. All facilities including ponds, pipes, ditches, pumps, and disposal equipment shall be utilized and maintained as necessary in order to prevent any unauthorized discharge to water in the State.
- H. This permit allows the disposal of water treatment plant residuals from the Wylie Water Treatment Facility operated by North Texas Municipal Water District. However, it does not preclude the disposal of water treatment plant residuals from other water treatment plant facilities operated by North Texas Municipal Water District or any other TCEQ authorized water treatment plant in the future, provided the maximum permitted disposal rate is not exceeded. A request for an additional water treatment plant residuals source shall be submitted to the

Water Quality Division Land Application Team (MC 150) for review and approval prior to disposal.

Attachment A



Attachment B



TEXAS REGISTERED ENGINEERING FIRM F-13
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H. Voluntary on-site compliance assessment dates:

N/A

I. Participation in a voluntary pollution reduction program:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A