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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 1, 2023

TO: Persons on the attached mailing list.

RE: Highland Lakes Midlothian I, LLC  
TPDES Permit No. WQ0015999001

Enclosed is a copy of the Executive Director's Response to Public Comment regarding the above-referenced matter.

Should you have any questions, please contact Ellie Guerra of the Texas Commission on Environmental Quality's Office of the Chief Clerk (MC 105) at (512) 239-3300.

Sincerely,

A handwritten signature in cursive script that reads "Laurie Gharis".

Laurie Gharis  
Chief Clerk

LG/erg

Enclosure

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for  
Highland Lakes Midlothian I, LLC  
TPDES Permit No. WQ0015999001

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**TPDES PERMIT NO. WQ0015999001**

**APPLICATION BY  
HIGHLAND LAKES MIDLOTHIAN I,  
LLC  
FOR TPDES PERMIT NO.  
WQ0015999001**

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**BEFORE THE  
TEXAS COMMISSION  
ON  
ENVIRONMENTAL QUALITY**

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**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT**

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The Executive Director (ED) of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on Highland Lakes Midlothian I, LLC's application for a new Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0015999001 and on the ED's preliminary decision. As required by 30 Texas Administrative Code (TAC) Section 55.156, before this 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 comments from Emily W. Rogers on behalf of the County of Ellis, the City of Midlothian, and the City of Waxahachie.

This Response addresses all timely filed public comments received, whether or not withdrawn.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 can be found at our website at <http://www.tceq.texas.gov>.

**BACKGROUND**

***Description of Facility***

The Applicant applied for a new permit to authorize the discharge of treated domestic wastewater at a daily average flow not to exceed 0.30 million gallons per day (MGD) at an Interim I volume, 1.20 MGD at an Interim II volume, and 2.76 MGD at a

Final volume. The facility has not been constructed. The plant site will be located approximately 2.7 miles southwest of the intersection of East Farm-to-Market Road 875 and Farm-to-Market Road 663, in Ellis County, Texas.

The Highland Lakes Wastewater Treatment Facility will be an activated sludge process plant operated in the conventional mode. Treatment units in the Interim I phase will include a bar screen, two aeration basins, two final clarifiers, an aerobic sludge digester, and a chlorine contact chamber. Treatment units in the Interim II phase will include a bar screen, five aeration basins, four final clarifiers, two aerobic sludge digesters, and a chlorine contact chamber. Treatment units in the Final phase will include a bar screen, nine aeration basins, seven final clarifiers, four aerobic sludge digesters, and two chlorine contact chambers.

The effluent limitations in the Interim I phase of the draft permit, based on a 30-day average, are 10 mg/l five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>), 15 mg/l total suspended solids (TSS), 3 mg/l ammonia-nitrogen (NH<sub>3</sub>-N), 1 mg/l total phosphorus (TP), 126 colony forming units (CFU) or most probable number (MPN) of *E. coli* per 100 ml, and 4.0 mg/l minimum dissolved oxygen (DO). The effluent shall contain a total chlorine residual of at least 1.0 mg/l and shall not exceed a total chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes based on peak flow.

The effluent limitations in the Interim II phase of the draft permit, based on a 30-day average, are 5 mg/l five-day CBOD<sub>5</sub>, 12 mg/l TSS, 2 mg/l NH<sub>3</sub>-N, 1 mg/l TP, 126 CFU or MPN of *E. coli* per 100 ml, and 4.0 mg/l minimum DO. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow). The Applicant shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual.

The effluent limitations in the Final phase of the draft permit, based on a 30-day average, are 5 mg/l five-day CBOD<sub>5</sub>, 5 mg/l TSS, 1 mg/l NH<sub>3</sub>-N, 0.5 mg/l TP, 126 CFU or MPN of *E. coli* per 100 ml, and 6.0 mg/l minimum DO. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow). The Applicant shall dechlorinate the chlorinated effluent to less than 0.1 mg/l total chlorine residual.

The treated effluent will be discharged to an unnamed tributary, then to South Prong Creek, then to Soil Conservation Service Site (SCSS) 17 Reservoir, then to South Prong Creek, then to Lake Waxahachie in Segment No. 0816 of the Trinity River Basin. The unclassified receiving water use is minimal aquatic life use for the unnamed tributary, limited aquatic life use for South Prong Lake, and high aquatic life use for SCSS 17 Reservoir. The designated uses for Segment No. 0816 are primary contact recreation, public water supply, and high aquatic life use. The 2020 Clean Water Act § 303(d) list, the State's inventory of impaired and threatened waters, does not currently list Segment No. 0816.

In accordance with 30 TAC § 307.5 and the June 2010 TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), TCEQ staff performed an antidegradation review of the receiving waters. 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 SCSS 17 Reservoir, 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.

### ***Procedural Background***

The TCEQ received the application on May 25, 2021, and declared it administratively complete on August 18, 2021. The Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published on September 1, 2021, in English in the *Waxahachie Sun* and in Spanish in the *Tex Mex News* on August 26, 2021. The application was determined technically complete on July 7, 2022. A combined NORI/Notice of Application and Preliminary Decision (NAPD) was published in English on October 5, 2022, in the *Waxahachie Sun* and in Spanish on October 6, 2022, in the *Tex Mex News*. The combined notice was issued to revise the facility location stated in the NORI to approximately 2.7 miles southwest of the intersection of East Farm-to-Market Road 875 and Farm-to-Market Road 663. In addition, the outfall location has also been revised and now proposes to discharge to the receiving waterbody of an unnamed tributary instead of directly to South Prong Creek. The comment period for this application closed on November 7, 2022.

This application was filed on or after September 1, 2015; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill (HB) 801, 76th Legislature (1999), and Senate Bill (SB) 709, 84th Legislature (2015), which are implemented by the Commission in its rules in 30 TAC Chapters 39, 50, and 55.

### ***Access to Rules, Laws and Records***

Please consult the following websites to access the rules and regulations applicable to this permit:

- to access the Secretary of State website: <https://www.sos.state.tx.us>;
- for TCEQ rules in Title 30 of the Texas Administrative Code (TAC): <https://www.sos.state.tx.us/tac/> (select “View the current Texas Administrative

Code” on the right, then “Title 30 Environmental Quality”);

- for Texas statutes: <https://statutes.capitol.texas.gov/>;
- to access the TCEQ website: [www.tceq.texas.gov](http://www.tceq.texas.gov) (for downloadable rules in Adobe PDF format, select “Rules” then “Download TCEQ Rules”);
- for Federal rules in Title 40 of the Code of Federal Regulations: [www.ecfr.gov](http://www.ecfr.gov); and
- for Federal environmental laws: <https://www.epa.gov/laws-regulations>.

Commission records for this facility are available for viewing and copying at the TCEQ’s Office of the Chief Clerk until the TCEQ takes final action on the application. Some documents located at the Office of the Chief Clerk may be located on the Commissioners’ Integrated Database at <https://www14.tceq.texas.gov/epic/eCID/>. The application for this facility has been available for viewing and copying at the Midlothian City Hall, 104 West Avenue E, Midlothian, Texas, since publication of the NORI. The draft permit, the Statement of Basis/Technical Summary, and the ED’s Preliminary Decision have been available since publication of the combined NORI/NAPD.

## **COMMENTS AND RESPONSES**

### **COMMENT 1:**

The County of Ellis, City of Waxahachie, and City of Midlothian were concerned about potential negative effects of the proposed discharge on the water quality and uses of South Prong Creek and Lake Waxahachie, a source of drinking water supply for the City of Waxahachie.

### **RESPONSE 1:**

The TCEQ is responsible for the protection of water quality with federal regulatory authority over discharges of pollutants to Texas surface water. The TCEQ has a statutory responsibility to protect water quality in the State of Texas and to authorize wastewater discharge TPDES permits under Texas Water Code (TWC) Chapter

26, and regulations 30 TAC Chapters 305, 307 and 309, including specific regulations regarding wastewater treatment systems under 30 TAC Chapters 217 and 309.

The proposed draft permit was developed in accordance with the Texas Surface Water Quality Standards (TSWQS) to be protective of water quality, provided that the Applicant operates and maintains the proposed facility according to TCEQ rules and the proposed permit's requirements. The methodology outlined in the June 2010's IPs is designed to ensure compliance with the TSWQS.

Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: 1) results in instream aquatic toxicity; 2) causes a violation of an applicable narrative or numerical state water quality standard; 3) results in the endangerment of a drinking water supply; or 4) results in aquatic bioaccumulation that threatens human health.

As part of the application process, TCEQ staff must determine the uses of the receiving waters and set effluent limits that are protective of those uses. In order to achieve the goal of maintaining a level of water quality sufficient to protect existing water body uses, the proposed permit contains several water quality specific parameter requirements that limit the potential impact of the discharge on the receiving waters.

In accordance with 30 TAC § 307.5 and the IPs, 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 SCSS 17 Reservoir, 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.

TCEQ staff performed a dissolved oxygen (DO) modeling analysis for each proposed flow phase to assess the potential impacts this discharge would have on the instream dissolved oxygen of the receiving water bodies. The DO modeling analysis results are used as one component of the antidegradation review. The primary purpose of the DO modeling analysis is to demonstrate that instream DO concentrations in the water bodies comprising the discharge route will be maintained at levels sufficient to ensure that the aquatic life will consistently be protected. Applicants are required to meet permit limits and conditions that are developed by TCEQ, in accordance with the TSWQS and IPs, to protect designated and assigned uses, including aquatic life use.

Effluent limitations in the draft permit for the conventional effluent parameters (i.e. CBOD<sub>5</sub>, Ammonia-Nitrogen, and minimum DO) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The ED has made a preliminary determination that the draft permit, if issued, meets all statutory and regulatory requirements. The TCEQ also submitted the draft permit to the U.S. Environmental Protection Agency (EPA) Region 6 for review on October 3, 2022. The EPA reviewed the draft permit and had no objections to the issuance of the draft permit with an approval dated November 4, 2022.

**COMMENT 2:**

The County of Ellis, City of Waxahachie, and City of Midlothian stated that the Applicant was not an experienced facility and system operator.

**RESPONSE 2:**

The Applicant may operate the facility itself or contract with an individual operator, company, and other entity to operate the facility. Other Requirement No. 1 in the permit requires that this Category C (Interim I phase) and B (Interim II and Final

phases) facility be operated by a chief operator or an operator holding a Class C (Interim I phase) and B (Interim II and Final phases) license or higher. The ED determines the level of operator required based on the treatment technology and the maximum permitted flow.<sup>1</sup>

**COMMENT 3:**

The County of Ellis, City of Waxahachie, and City of Midlothian were concerned that the application did not contain all the information that TCEQ requires.

**RESPONSE 3:**

TCEQ staff uses the permit application and various sources of information, including maps and databases, when evaluating a permit application. The TCEQ permit application process requires all applicants to certify under penalty of law that the document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The understanding is that the information provided is true, accurate and complete.

The review process is done based on the information provided in the application. In most cases, an applicant is sent a notice of deficiency (NOD) if there is missing information that is required to complete the review of the permit application. The ED has reviewed Highland Lakes Midlothian I, LLC's application and determined that the draft permit meets all applicable legal and technical requirements.

The following items were considered in developing the draft permit:

- Application received from Highland Lakes Midlothian I, LLC on May 25, 2021, and additional information received on July 19, 2021, September 9, 2021, January 12, 2022, and August 23, 2022;

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<sup>1</sup> 30 TAC § 30.350 - Figure 30 TAC § 30.350(e).

- Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10, effective July 22, 2010;
- EPA-approved portions of the 2014 Texas Surface Water Quality Standards, effective March 6, 2014;
- 30 TAC Chapter 213: Edwards Aquifer; Subchapter A: Edwards Aquifer in Medina, Bexar, Comal, Kinney, Uvalde, Hays, Travis, and Williamson Counties;
- 30 TAC Chapter 309, Subchapter A: Effluent Limitations;
- 30 TAC Chapter 30, Subchapter J: Wastewater Operators and Operations Companies;
- 30 TAC Chapter 217: Design Criteria for Domestic Wastewater Systems;
- 30 TAC Chapter 312: Sludge Use, Disposal, and Transportation;
- 30 TAC Chapter 319, Subchapter A: Monitoring and Reporting Requirements;
- Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division;
- Procedures to Implement the Texas Surface Water Quality Standards (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA; and the IP, January 2003, for portions of the 2010 IP not approved by EPA;
- Texas 2020 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, March 25, 2020; approved by the U.S. Environmental Protection Agency on May 12, 2020;
- Texas Natural Resource Conservation Commission Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998; and
- Compliance history report for Highland Lakes Midlothian I, LLC and the proposed facility prepared on March 18, 2022.

**COMMENT 4:**

The County of Ellis, City of Waxahachie, and City of Midlothian stated that notice of the application was only provided once and therefore was not properly noticed.

**RESPONSE 4:**

The TCEQ received the application on May 25, 2021, and declared it

administratively complete on August 8, 2021. The Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published on September 1, 2021, in English in the *Waxahachie Sun* and in Spanish in the *Tex Mex News* on August 26, 2021. The application was determined technically complete on July 7, 2022. A combined NORI/NAPD was published in English on October 5, 2022, in the *Waxahachie Sun* and in Spanish on October 6, 2022, in the *Tex Mex News*. The combined notice was issued to revise the facility location stated in the NORI to approximately 2.7 miles southwest of the intersection of East Farm-to-Market Road 875 and Farm-to-Market Road 663. In addition, the outfall location was also revised and now proposes to discharge to the receiving waterbody of an unnamed tributary instead of directly to South Prong Creek.

**COMMENT 5:**

The County of Ellis, City of Waxahachie, and City of Midlothian were concerned about emerging contaminants being present in the effluent.

**RESPONSE 5:**

The TCEQ has not investigated the potential effects of emerging contaminants, which includes Pharmaceuticals and Personal Care Products (PPCPs), in effluent. Neither the TCEQ nor the EPA has promulgated rules or criteria limiting emerging contaminants in wastewater. The EPA is investigating emerging contaminants and has stated that scientists have not found evidence of adverse human health effects from emerging contaminants in the environment. Removal of some emerging contaminants has been documented during municipal wastewater treatment; however, standard removal efficiencies have not been established. In addition, there are currently no federal or state effluent limits for emerging contaminants. So, while the EPA and other agencies continue to study the presence of PPCPs, there is currently no clear regulatory regime available to address the treatment of PPCPs in domestic wastewater.

Accordingly, neither the TCEQ nor the EPA has rules on the treatment of contaminants

such as pharmaceuticals in domestic wastewater.

**COMMENT 6:**

The County of Ellis, City of Waxahachie, and City of Midlothian commented that TCEQ should require a full study on the application's effect on water quality throughout the discharge route.

**RESPONSE 6:**

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, federal agencies must prepare detailed statements which include an Environmental Assessment and either a Finding of No Significant Impact or Environmental Impact Statement. However, these requirements pertain to a proposed federal action. An environmental impact statement and compliance with NEPA are not required as part of the TPDES wastewater permitting process.

In addition, a dissolved oxygen (DO) modeling analysis was performed for the evaluation of potential impacts of major oxygen-demanding constituents on dissolved oxygen levels in the receiving water bodies. To ensure that dissolved oxygen modeling results and corresponding effluent limit recommendations are conservative and protective under all conditions, the proposed discharge was evaluated under what are expected to be the most unfavorable of environmental conditions, specifically hot and dry summertime conditions. The unnamed tributary was determined to be an intermittent stream with minimal aquatic life use while South Prong Creek was determined to be an intermittent stream with pools, with a limited aquatic life use. Both the unnamed tributary and South Prong Creek were therefore modeled with a presumption of zero background streamflow, with the only flow present in the model being that from the proposed discharge. Each proposed flow phase was

modeled at its full proposed flow (interim phase = 0.30 MGD, interim II = 1.2 MGD, & final phase = 2.76 MGD) and at full waste load concentration (i.e. CBOD<sub>5</sub>, NH<sub>3</sub>-N, and min. DO). This combination of conditions is a conservative, worst-case scenario that is unlikely to occur. Despite modeling this conservative worst-case scenario, modeling results indicated that effluent limits of 10 mg/L CBOD<sub>5</sub>, 3 mg/L NH<sub>3</sub>-N, and 4.0 mg/L DO for the 0.30 MGD phase; 5 mg/L CBOD<sub>5</sub>, 2 mg/L NH<sub>3</sub>-N, and 4.0 mg/L DO for the 1.20 MGD phase; and 5 mg/L CBOD<sub>5</sub>, 1 mg/L NH<sub>3</sub>-N, and 6.0 mg/L DO for the 2.76 MGD phase would be sufficient to maintain dissolved oxygen levels above the criteria stipulated by the Standards Implementation Team for the unnamed tributary (2.0 mg/L), South Prong Creek (3.0 mg/L), and SCSS 17 Reservoir (5.0 mg/L).

#### **CHANGES MADE TO THE DRAFT PERMIT IN RESPONSE TO COMMENT**

No changes to the draft permit have been made in response to public comment.

Respectfully submitted,

Texas Commission on Environmental Quality

Erin E. Chancellor  
Interim Executive Director

Guy Henry, Acting Deputy Director  
Environmental Law Division




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Celia Castro, Staff Attorney  
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REPRESENTING THE  
EXECUTIVE DIRECTOR OF THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

### CERTIFICATE OF SERVICE

I certify that on May 25, 2023, the Executive Director's Response to Public Comment for Permit No. WQ0015999001 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.

A handwritten signature in cursive script that reads "Celia Castro". The signature is written in black ink and is positioned above a horizontal line.

Celia Castro, Staff Attorney  
Environmental Law Division  
State Bar No. 03997350