TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER GRANTING THE APPLICATION BY CITY OF LIBERTY HILL FOR RENEWAL OF TPDES PERMIT NO. WQ0014477001 IN WILLIAMSON COUNTY, TEXAS; SOAH DOCKET NO. 582-22-1222; TCEQ DOCKET NO. 2021-0999-MWD

On March 28, 2024, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application of the City of Liberty Hill (Applicant or City), for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014477001 in Williamson County, Texas. A Supplemental Proposal for Decision (PFD) on Remand was presented by Administrative Law Judges (ALJ) Meitra Farhadi and Rachelle Nicolette Robles with the State Office of Administrative Hearings (SOAH), who conducted an evidentiary hearing on remand on July 26-28, 2023, in Austin, Texas via Zoom videoconferencing.

After considering the PFD, the Commission makes the following findings of fact and conclusions of law.

I. FINDINGS OF FACT

Application

1. Applicant filed its application (Application) to renew its TPDES permit with the Commission on September 5, 2018.

2. The Application requested continued authorization to discharge treated domestic wastewater from a municipal wastewater treatment plant, the Liberty Hill Regional Wastewater Treatment Facility (Facility), SIC Code 4952, located approximately 8,800 feet southeast of the intersection of U.S. Highway 29 and U.S. Highway 183 in Williamson County, Texas, 78641, into the South Fork San Gabriel River (River) in Segment No. 1250 of the Brazos River Basin.

3. The Application requested continued authorization to treat domestic wastewater and discharge that treated wastewater from the proposed Facility at a daily average flow not to exceed 2.0 million gallons per day (MGD) in the interim phase, and a daily average flow not to exceed 4.0 MGD in the final phase.

4. The Executive Director (ED) of the Commission declared the Application administratively complete on November 9, 2018.

5. The ED completed the technical review of the Application, prepared a draft permit (Draft Permit)), and made it available for public review and comment.

Background

6. In 2003, the Lower Colorado River Authority and the Brazos River Authority submitted the original wastewater permit application to authorize the Facility to treat, pipe, and discharge effluent directly to the River.

7. The original permit authorized the discharge of proposed effluent in an Interim I phase at 0.4 MGD, Interim II phase at 0.8 MGD, and Final phase at 1.2 MGD, and with an effluent limit in all phases of 0.5 mg/L of Total Phosphorus (TP) and an effluent reporting requirement for Total Nitrogen (TN).

8. The original permit also included language in the "Other Requirements" section of the permit requiring the permit holder to conduct nutrient input and response monitoring. This study was to evaluate the effectiveness of the discharge limitations and could result in, if warranted, the assignment of more stringent permit controls in future permit actions.

9. The permit was transferred to the City in 2012 and was subsequently amended such that the phases were an Interim I phase at 0.4 MGD, Interim II phase at 1.2 MGD, and Final phase at 4.0 MGD, with an effluent limit in the interim phases of 0.5 mg/L of TP and in the Final phase at 0.15 mg/L of TP.

10. The Draft Permit would constitute a renewal with minor amendment, in that it would authorize the continued discharge of treated wastewater effluent from the Facility directly to the River, in an Interim phase at 2.0 MGD and Final phase at 4.0 MGD, and with an effluent limit in all phases of 0.15 mg/L of TP.

Draft Permit

11. The Facility is a membrane bioreactor (MBR) facility. Treatment units in the Interim phase include an 0.8 MGD MBR facility which consists of a package headworks unit with screening, grit, and grease removal, an anaerobic tank, an anoxic tank, a pre-aeration tank, and two MBR units. The MBR plant uses the same alum feed system, ultraviolet light (UV) disinfection system, and step aeration treatment units as the previously operated sequencing batch reactor (SBR) facility. The Facility also has a sludge storage tank and a belt press sludge processing unit. A 1.2 MGD MBR facility identical to the 0.8 MGD MBR facility has been built to reach the Interim phase capacity of 2.0 MGD design flow rate. It will consist of two anaerobic tanks, two anoxic tanks, two pre-aeration tanks, and five MBR units. For the Final phase, an additional 2.0 MGD facility, identical to the Interim phase

facility, will be built to bring the total plant capacity up to 4.0 MGD. In addition, the 0.4 MGD SBR facility will be decommissioned.

12. The effluent limitations in the Draft Permit are as follows for all phases or as noted:

Parameter	30-Day Average in mg/L	30-Day Average in lb/day (interim phase)	30-Day Average in lb/day (final phase)	7-Day Average mg/L	Daily Maximum mg/L
CBOD5	5	83	167	10	20
TSS	5	83	167	10	20
NH3-N	2	33	67	5	10
NO3-N	16.6	277	554	N/A	35.2
TN	Report	Report	Report	N/A	Report
TP	0.15	2.5	5	0.3	0.6
DO (minimum)	5	N/A	N/A	N/A	N/A
E. coli, CPU or MPN per 100 ml	126	N/A	N/A	N/A	399

13. In the Interim phase, the average discharge during any two-hour period (2-hour peak) shall not exceed 4,514 gallons per minute (gpm). In the final phase, the average discharge during any two-hour period (2-hour peak) shall not exceed 9,028 gpm.

14. The permittee shall utilize an UV system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the ED.

Notice and Jurisdiction

15. The Notice of Receipt of Application and Intent to Obtain Water Quality Permit was published on December 2, 2018, in the *Williamson County Sun*.

16. The Application was determined technically complete on March 12, 2020.

17. The Combined Notice of Application and Preliminary Decision and Notice of Public Meeting was published on July 15, 2020, in the *Williamson County Sun.*

18. A public meeting was held on August 17, 2020, via videoconference.

19. The public comment period ended at the close of the public meeting on August 17, 2020.

20. Sharon Cassady, Terry Ira Cassady, Stephanie Morris, Daniel Morris, and Jeff Wiles, among others, timely filed formal Public Comments and Requests for a Contested Case Hearing.

21. The ED filed its Response to Comments with the Chief Clerk on June 15, 2021.

22. On October 6, 2021, the Commission considered during its open meeting the requests for hearing and requests for reconsideration. After evaluation of all relevant filings, the Commission determined that Sharon Cassady, Terry Ira Cassady, Stephanie Morris, Daniel Morris, and Jeff Wiles were affected persons and were entitled to a contested hearing.

23. At its October 6, 2021, open meeting, the Commission determined to refer the hearing requests filed by Jon and Carolyn Ahrens, David and Louise Bunnell, Gerald and Susan Harkins, Carrol Holley, Jessica Jensen, LaWann Tull, and Mark Tummons to SOAH for a determination on whether they qualified as affected persons.

24. At its October 6, 2021, open meeting, the Commission considered the issues to be referred to SOAH.

25. On October 19, 2021, the Commission issued an Interim Order granting certain hearing requests, referring certain hearing requests to SOAH, denying certain hearing requests, and referring the Application to SOAH for a contested hearing on the following ten issues (Referred Issues):

    A) Whether the draft permit is protective of water quality, groundwater, and uses of the receiving waters of the South Fork San Gabriel River in accordance with the Texas Surface Water Quality Standards, including recreational use and with consideration of the maximum volume of the proposed discharge;

    B) Whether the draft permit includes adequate provisions to protect the health of the requesters and their families and aquatic and terrestrial wildlife;

    C) Whether the draft permit adequately addresses nuisance conditions, including odor, in accordance with 30 Texas Administrative Code § 309.13(e);

    D) Whether the draft permit includes appropriate provisions to protect against excessive growth of algae and comply with the aesthetic parameters and requirements of 30 Texas Administrative Code § 307.4, including aquatic nutrient limitations;

    E) Whether the draft permit should be denied or altered based on Applicant's compliance history;

    F) Whether the draft permit should be denied or altered in consideration of the need for the facility in accordance with Texas Water Code § 26.0282, Consideration of Need and Regional Treatment Options;

    G) Whether the draft permit complies with applicable antidegradation requirements;

    H) Whether the draft permit requires adequate licensing requirements for the operator of the facility and adequate requirements regarding operator supervision;

I) Whether the draft permit includes adequate provisions to protect the requesters' use and enjoyment of their property; and

J) Whether the draft permit includes sufficient monitoring and reporting requirements, including necessary operational requirements.

26. At its October 6, 2021, open meeting, the Commission also denied all requests for reconsideration and set the maximum duration of the hearing at 180 days from the date of the preliminary hearing until the date the PFD is issued by SOAH.

27. On February 16, 2022, notice of the preliminary hearing was published in the *Williamson County Sun*. On February 23, 2022, an amended notice of the preliminary hearing was published in the *Williamson County Sun*. Known parties received mailed notice. The notice included the time, date, and place of the hearing, as well as the matters asserted, in accordance with the applicable statutes and rules.

Proceedings at SOAH

28. On March 28, 2022, a preliminary hearing was convened in this case via videoconference by SOAH ALJ Meitra Farhadi. The following parties, represented by counsel, appeared and were admitted as parties: Applicant; the ED; Office of Public Interest Council (OPIC); and Stephanie Morris. Self-represented individuals admitted as parties were: Daniel Morris, Jeff Wiles, Jon and Carolyn Ahrens, David and Louise Bunnell, Gerald and Susan Harkins, Frank and LaWann Tull, Andrew and Elizabeth Engelke, Pamela Sylvest, Joanne and John Swanson, Tom and Valerie Erikson, Carolyn and Donnie Dixon, and Sharon, Terry Ira, and Jackson Cassady. Subsequently, all of the self-represented individuals except for Daniel Morris and Jeff Wiles hired counsel and were represented collectively as the "Bunnell Protestants." Daniel Morris withdrew as a party in advance of the hearing on the merits, and Jeff Wiles did not participate in the hearing on the merits.

29. The Administrative Record was admitted into the record as Applicant's Exhibits AR-1, AR-2, AR-3, AR-4, AR-5, AR-6, and AR-7, and the ALJ determined that jurisdiction was established. By agreement, the 180-day deadline for the PFD was extended to October 24, 2022, to accommodate the parties' desired procedural schedule.

30. On May 20, 2022, Protestant Stephanie Morris filed a motion to certify to the Commissioners a question, pursuant to 30 Texas Administrative Code § 80.131, as to whether an antidegradation analysis under 30 Texas Administrative Code § 307.5 was required for Applicant's permit renewal that is the subject of this docket. After briefing by all interested parties, the ALJ denied the motion by order dated June 15, 2022.

31. SOAH ALJs Meitra Farhadi and Rachelle Nicolette Robles convened a prehearing conference via videoconference on July 13, 2022. All parties appeared through their

respective representatives and the ALJs addressed pending motions and matters of hearing organization.

32. The ALJs convened a hearing on the merits via Zoom videoconference on July 20, 2022, and concluded on July 22, 2022. The record ultimately closed on August 23, 2022, the date on which the last post-hearing written arguments were filed.

33. On October 24, 2022, the ALJs issued a Proposal for Decision (Initial PFD) recommending that the Application be approved with modifications to the Draft Permit.

34. On February 8, 2023, the Commission considered the ALJs' Initial PFD during an open meeting and voted to remand the matter to SOAH for additional proceedings.

35. The Commission issued an Interim Order on February 13, 2023, remanding the case to SOAH "for the parties to present additional evidence to determine the Total Phosphorus effluent limit necessary to comply with the Texas Surface Water Quality Standards. Under the Standards, the total phosphorus effluent limit should prevent excessive algal growth that impairs an existing use of the receiving water and should prevent the degradation of water quality by more than a *de minimis* amount."

36. ALJs Meitra Farhadi and Rachelle Nicolette Robles convened a prehearing conference on remand via Zoom videoconference on March 29, 2023.

37. On March 30, 2023, the ALJs issued Order No. 11, memorializing the preliminary hearing on remand, granting motion to compel, and adopting the parties' agreed procedural schedule on remand for this case.

37A. On July 21, 2023, the ALJs convened a prehearing conference via videoconference. All parties appeared through their respective representatives and the ALJs addressed pending motions, including objections and motions to strike, and matters pertinent to the remand hearing organization.

38. ALJs Meitra Farhadi and Rachelle Nicolette Robles convened the hearing on the merits on remand (Remand Hearing) via Zoom videoconference on July 26-28, 2023.

39. On August 2, 2023, the ALJs issued Order No. 13, granting Applicant's motion to withdraw party status of Jeffrey Wiles for not participating in the proceedings.

40. On August 17, 2023, the ALJs issued Order No. 15, denying Applicant's motions for conference and reconsideration of the ALJs' decision to strike portions of Applicant's prefiled testimony.

41. The record closed on September 14, 2023, the date on which the last post-hearing written arguments were filed.

Referred Issues Related to Regulatory Water Quality Standards

Issue A: Whether the Draft Permit is protective of water quality, groundwater, and uses of the receiving waters of the South Fork San Gabriel River in accordance with the Texas Surface Water Quality Standards, including recreational use and with consideration of the maximum volume of the proposed discharge.

Issue D: Whether the Draft Permit includes appropriate provisions to protect against excessive growth of algae and comply with the aesthetic parameters and requirements of 30 Texas Administrative Code § 307.4, including aquatic nutrient limitations.

Issue G: Whether the Draft Permit complies with applicable antidegradation requirements.

42. The Texas Surface Water Quality Standards (TSWQS) are intended to maintain the quality of water in the state in order to be protective of public health and enjoyment, and terrestrial and aquatic life, and to consider other environmental and economic resources.

43. The TSWQS designate uses for the state's surface waters and establish narrative and numerical water quality standards to protect those uses.

44. The TCEQ has adopted standard procedures to implement the TSWQS, which are set forth in "Procedures to Implement the Texas Surface Water Quality Standards (RG 194)" (IPs).

45. The TSWQS and IPs are used to set permit limits for wastewater discharges.

46. The TSWQS do not contain numerical criteria for nutrients, including phosphorus and nitrogen.

47. Under the TSWQS, surface waters must be maintained in an aesthetically attractive condition.

48. Under the TSWQS, nutrients from permitted discharges must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use.

49. An existing use is one that is currently being supported by a specific water body or that was attained on or after November 28, 1975.

50. A designated use is one assigned to specific water bodies in Appendix A, D, or G of 30 Texas Administrative Code § 307.10.

51. A presumed use is one that is assigned to generic categories of water bodies, but these are superseded by designated uses.

52. An attainable use is one that can be reasonably achieved by a water body in accordance with its physical, biological, and chemical characteristics, whether it is currently meeting that use or not.

53. Under the TSWQS, surface water must be essentially free of floating debris and suspended solids that are conducive to producing adverse responses in aquatic organisms or putrescible sludge deposits or sediment layers that adversely affect benthic biota or any lawful uses.

54. Under the TSWQS, waste discharges must not cause substantial and persistent changes from ambient conditions of turbidity or color.

55. The TCEQ's Antidegradation Policy provides that for Tier 1 review, existing uses and water quality sufficient to protect those existing uses must be maintained. For Tier 2, no activities subject to regulatory action that would cause degradation of waters that exceed fishable/ swimmable quality are allowed unless it can be shown to TCEQ's satisfaction that the lowering of water quality is necessary for important economic or social development.

56. A permit may not cause or contribute to a violation of applicable water quality standards, including state narrative criteria.

57. The River is Segment 1250 in the Brazos River Basin. The designated uses for Segment 1250 are primary contact recreation one, high aquatic life use, public water supply, and aquifer protection.

58. Primary contact recreation one consists of activities that are presumed to involve a significant risk of ingestion of water, such as wading by children, swimming, water skiing, tubing, surfing, handfishing, kayaking, canoeing, and rafting.

59. A high aquatic life use has the following attributes: 1) highly diverse habitat; 2) usual association of regionally expected species; 3) the presence of sensitive species; 4) high diversity; 5) high species richness; and 6) a balanced to slightly imbalanced trophic structure.

60. Under the TSWQS, Segment 1250 is subject to numerical criteria for dissolved oxygen (DO). The 24-hour average criterion for DO is 5.0 mg/L and the 24-hour minimum is 3.0 mg/L. These criteria become 5.5 mg/L and 4.5 mg/L, respectively, during the spawning season.

61. Under the TSWQS, Segment 1250 is subject to numerical maximum criteria for dissolved minerals such as total dissolved solids, chloride, and sulfate that must be maintained such that existing, designated, presumed, and attainable uses are not impaired. The criteria for Segment 1250 are as follows: 350 mg/L for total dissolved solids, 50 mg/L for chloride, and 50 mg/L for sulfate.

62. TCEQ screening determined that the discharge would exceed the instream standards. Because of this, the Draft Permit requires the City to conduct a study to determine the sources of TDS in the influent to see if it can be reduced that way, as opposed to imposing a limit on TDS in the Draft Permit.

63. The River in the area of the outfall is a predominantly wide, shallow, limestone riverbed, with low harmonic mean flow and low background levels of nutrients in the water, such as phosphorus and nitrogen, making the water sensitive to nutrient enrichment and particularly susceptible to overgrowth of algae.

64. Upstream of the outfall, the water in the River is clear, the limestone riverbed with a thin layer of chalky-white sediment composed of calcium carbonate precipitates is visible, and the river contains very little filamentous algae. There are also golden-brown diatoms and other native, microscopic algae and microbes that form a thin layer on the stream bottom.

65. Conditions upstream of the outfall, where the river is unaffected by the effluent, are typical of naturally occurring conditions in low-nutrient Hill Country streams and what would be expected of naturally occurring conditions in the River.

66. Background levels of phosphorus in the South Fork San Gabriel River upstream of the outfall, where the river is unaffected by the effluent, are at or below 0.01 mg/L.

67. The existing uses of the South Fork San Gabriel River include fishing, swimming, wading, tubing, and paddling.

68. Algae is a type of aquatic vegetation. Significant algae grows at the outfall and persists at least 3.83 miles downstream of the outfall.

69. The City's effluent discharge from the Facility is the predominant cause of the algae found at and downstream of the outfall.

70. Phosphorus, nitrate-nitrogen, and ammonia nitrogen all contribute to the growth of algae in the river.

71. The quantity of the algae growth is excessive, such that it impairs wading, swimming, fishing, paddling, and other recreational uses.

72. The quantity and geographical extent of the algae growth causes the river to be aesthetically unattractive for several miles.

73. The algal bloom downstream of the outfall is related to the outfall and not the other potential sources.

74. The presence of algae can cause levels of DO in a water body to rise during the day due to photosynthesis by the vegetation, which produces oxygen, and to drop at night.

75. For a continuous four-month period between December 2021 and March 2022, Applicant discharged effluent that averaged between 1.36 and 1.463 MGD with concentrations of phosphorus between 0.06 and 0.081 mg/L.

76. In April and May 2022, the City spent weeks cleaning the algae from the area immediately around and downstream of the outfall; however, thethis algae grew back within days and weeks.

77. Staff performed DO modeling based on the Draft Permit limits for carbonaceous biochemical oxygen demand, ammonia nitrogen, and DO using QUAL-TX.

78. Indirect impacts, such as from algae or TP, are not taken into account under the QUAL-TX model.

79. Nutrients, such as TP and the resultant effect of algae, do affect the DO in a stream.

80. Neither Staff nor Applicant performed any nutrient modeling for the Draft Permit.

81. The QUAL-TX model did not take swings in DO levels over a 24-hour period of time into account.

82. The QUAL-TX model is intended to evaluate the 24-hour average DO criteria.

83. The QUAL-TX model is not used for modeling nutrients or evaluating the potential impacts of nutrients on a water body.

84. The QUAL-TX model does not provide any information as to whether the DO minimum standard will be met.

85. For the DO criteria to be met, sufficiently protective nutrient limits, like TP, must also be included in the permit.

86. The record evidence fails to demonstrate that the Draft Permit's proposed 0.15 mg/L TP limit will achieve the DO criteria for the River.~~Neither Applicant nor the ED has demonstrated that the Draft Permit will achieve the DO criteria for the River.~~

87. Water Quality Analysis Simulation Program (WASP) is a water quality model that has been developed by the United States Environmental Protection Agency. It is specifically designed to predict, among other things, algae responses to nutrient loads.

88. The City of Austin implemented a calibrated WASP model for the River specifically to characterize the predicted occurrence of algae in response to Applicant's effluent discharge.

89. Based on a maximum effluent discharge of 1.2 MGD at 0.1 mg/L TP, the WASP model concluded that the River will be ~~eutrophic~~ high in nutrients and algae and have lower dissolved oxygen below the outfall, and that nuisance benthic algae levels are predicted to occur most of the time.

89A. The best available information indicates that a TP limit of no more than 0.02 mg/L would be necessary to maintain high quality, clear water, high dissolved oxygen, and excellent aquatic animal habitat conditions in the River.

90. The IPs provide that when screening indicates that a reduction of effluent TP is needed, an effluent limit is recommended based on reasonably achievable ~~technology based~~technology-based limits, with consideration of the sensitivity of the site. Higher or lower limits may be recommended based on site-specific mitigating factors.

91. The IPs state that considerations for nutrient impacts should focus on TP rather than nitrogen for a number of reasons, including that less data on TN has been collected in Texas reservoirs, streams, and rivers; and available waste treatment technologies make reducing phosphorus more effective than reducing nitrogen as a means of limiting algal production.

92. The IPs state that permit renewals may be evaluated for potentially significant concentrations of TP (and if appropriate, TN) on a case-by-case basis.

93. Under Applicant's current permit, at the Interim phase of 1.2 MGD and 0.5 mg/L total phosphorus, the phosphorus loading amounts to 5 pounds per day.

94. Under the Draft Permit, total loading of phosphorus will increase from the Interim phase at 2.0 MGD and 2.5 pounds per day of phosphorus, to 5 pounds per day in the Final phase at 4.0 MGD.

95. Effluent discharge pursuant to the limitations of the Draft Permit will cause algae to continue to grow in similar quantities and to persist for a similar distance downstream as is present today ~~and~~ under Applicant's current permit.

96. The algae that will grow under the Draft Permit will be excessive and will impair existing, designated, and attainable uses, including recreational uses and high aquatic life use, in the River for multiple miles.

97. The algae that will grow under the Draft Permit will cause the River to be aesthetically unattractive at and downstream of the outfall, for multiple miles.

98. The effluent limit of 0.15 mg/L TP in the Draft Permit will not prevent the excessive growth and accumulation of aquatic vegetation in the River, nor will it maintain the aesthetic parameters of the South Fork San Gabriel River.

99. Protestants failed to rebut the prima facie demonstration that the effluent limits in the Draft Permit are protective of groundwater.

100. An antidegradation review was completed in 2013 for the current permit.

101. The 2013 antidegradation review involved a mathematical error. The 7Q2 flow used was 0.15 cubic feet per second (cfs) instead of 0.1 cfs, and the harmonic mean flow used was 0.4 cfs instead of 0.2 cfs.

102. The effect of the effluent on the stream was therefore underestimated in the 2013 antidegradation review.

103. The 2013 antidegradation review has also been shown to be inadequate, based upon the widespread degradation of the South Fork San Gabriel River at and downstream of the City's effluent discharge point since the permit analyzed in the 2013 review became effective.

104. The Commission has the discretion to conduct an antidegradation review for permit renewal applications that do not seek an increase in pollutants.

105. No antidegradation review was performed for this Application.

106. Applicant did not seek permission from the Commission to degrade the water quality of the River as necessary for important economic or social development.

On Remand

107. No antidegradation review was performed on remand.

107A. The Protestants' water samples used to recommend a TP effluent limit of 0.015 mg/L for the Draft Permit were analyzed by the Center for Reservoir and Aquatic Systems Research analytical lab at Baylor University, which is not a laboratory certified by the National Environmental Laboratory Accreditation Program (NELAP) in accordance with 30 Texas Administrative Code Chapter 25.

108. For a continuous period between December 2022 and April 2023, Applicant discharged effluent that averaged concentrations of phosphorus between 0.05 and 0.08 mg/L.

109. [Deleted] ~~The relevant and reliable body of scientific literature demonstrates that, in freshwater streams like the South Fork San Gabriel River, a "tipping point" exists at or about a TP concentration of 0.02 mg/L, at which algal growth occurs at an exponential rate.~~

110. Biological changes to sensitive diatoms will begin at concentrations between 0.01 and 0.015 mg/L of TP.

111. Diatoms are a key element of the structure and function of the South Fork San Gabriel River. As the diatom population declines, conditions become ideal for their replacement by pollution-tolerant, weedy species such as nuisance filamentous green algae.

111A. A discharge of no more than 0.02 mg/L TP during low flow periods will support recreational uses by preventing nuisance algae growth.

111B. A discharge of effluent at the volumes to be permitted [or contemplated] under the renewal permit would be expected to reduce aquatic life, aesthetics, and recreational conditions in this part of the River during low flow conditions if TP exceeds 0.02 mg/L.

112. The TP effluent limit necessary to prevent excessive algal growth that impairs high aquatic life use is 0.02~~15~~ mg/L.

113. The TP effluent necessary to prevent excessive algal growth that impairs primary contact recreation use is 0.02~~15~~ mg/L.

114. The TP effluent limit necessary to prevent the lowering of water quality by more than a *de minimis* amount is 0.02~~15~~ mg/L.

115. Therefore, the TP effluent limit necessary to comply with the TSWQS is 0.02~~15~~ mg/L.

Referred Issues Related to Wildlife and Health Protection

Issue B: Whether the draft permit includes adequate provisions to protect the health of the requesters and their families and aquatic and terrestrial wildlife.

116. One of the purposes of the TSWQS is to maintain the quality of water in the state consistent with public health and enjoyment.

117. The proposed discharge will not adversely impact the health of the requesters, their families, and aquatic and terrestrial wildlife.

Referred Issues Related to Nuisance Issues

Issue C: Whether the draft permit adequately addresses nuisance conditions, including odor, in accordance with 30 TAC§ 309.13(e)

Issue I: Whether the draft permit includes adequate provisions to protect the requesters' use and enjoyment of their property

118. The Facility's wastewater treatment plant units are located at least 150 feet from the nearest property line.

119. The Facility does not contain lagoons with zones of anaerobic activity.

120. Applicant will own the buffer zone, the area between the Facility and the nearest property line.

121. [Deleted] ~~The Texas Water Code requires a permit applicant to comply with one of three options for abating nuisance odors: a 500-foot buffer zone to the nearest property line for lagoons with zones of anaerobic activity or a 150 foot buffer zone to the nearest property line for all other wastewater treatment plant units; the implementation of an approved nuisance odor prevention plan; or an enforceable restriction against constructing residential structures within any part of a buffer zone not owned by the plant.~~

122. The algae growth in the River, which is caused by the effluent, impairs the ability of requesters to enjoy their property by impairing their ability to enjoy the river in an aesthetically attractive condition, the smells of decaying algae in the river impair the ability of requesters to enjoy spending time outdoors on their property, the algae growth impairs the ability of requesters to go swimming, wading, and fishing in the river from their property, and the algae impairs the ability of requesters to observe wildlife from their property.

123. Considering Applicant's compliance history, revisions to the Draft Permit are warranted to address nuisance odor conditions caused by the decay of the excessive algae in the River so that it does not interfere with the use and enjoyment of properties downstream.~~odors from the Facility and nuisance odor conditions in the effluent itself, and to control the growth of algae so that it does not present a nuisance to properties downstream.~~

Referred Issues on Effects on Permit of Compliance History and Regionalization Policy

Issue E: Whether the draft permit should be denied or altered based on the Applicant's compliance history.

Issue F: Whether the draft permit should be denied or altered in consideration of the need for the facility in accordance with Texas Water Code § 26.0282, Consideration of Need and Regional Treatment Options.

124. The Facility and Applicant each had a "satisfactory" compliance rating, as determined by the standards of 30 Texas Administrative Code chapter 60.

125. The TCEQ has the authority to alter the terms of Applicant's Draft Permit.

126. The City has agreed, since August 21, 2018, to three administrative orders entered by TCEQ.

127. The 2018 administrative order covered allegations of eight different violations of permit limits in a 10-month period beginning in December 2015, and three of the eight involved phosphorus.

128. The 2020 administrative order alleged eight permit violations in a 19-month period beginning in November 2016. One of those violations included 50 separate exceedances of permit limits, 11 of which involved phosphorus.

129. The 2022 administrative order dealt with nine alleged exceedances of permit limits in an 11-month period beginning in September 2019. Six of the exceedances involved phosphorus.

130. Videos, photographs, and eye-witness testimonies in the record establish that the operation of the City's wastewater plant has badly degraded the River for at least several miles downstream of the plant's outfall.

131. The total flow in the Final phase should remain at 4.0 MGD.

132. The policy of the Texas Water Code is to encourage and promote the development and use of regional and areawide waste collection, treatment, and disposal systems.

133. [Deleted]~~The Texas Water Code gives TCEQ permissive authority to deny or alter the terms and conditions of the proposed permit terms on consideration of need, including expected volume and quality of the influent and the availability of existing or proposed areawide or regional waste collection, treatment, and disposal systems.~~

134. An increase in population growth in the area served by the Facility results in an increased demand for wastewater collection, treatment, and disposal.

135. Applicant needs the requested levels of 4.0 MGD in order to effectively provide its services.

Referred Issues Related to Permit Terms Referring to Facility Management and Monitoring

Issue H: Whether the draft permit requires adequate licensing requirements for the operator of the facility and adequate requirements regarding operator supervision.

Issue J: Whether the draft permit includes sufficient monitoring and reporting requirements, including necessary operational requirements.

136. The TCEQ has the authority to require permit conditions or provisions to address any concerns with an applicant's compliance history, as it had with the addition of requiring Applicant to enter into a contract with a third-party operator.

137. Applicant's system is currently classified as a Category B system and must have a chief operator with an operator license of a Class B or higher.

138. The ED may increase the treatment facility classification, and as a result, the required chief operator license, for facilities which include unusually complex processes or present unusual operation or maintenance conditions.

139. The Draft Permit requires Applicant be supervised by a third-party to ensure it is complying with the terms of its permit.

140. The record did not demonstrate that the Applicant's MBR Facility is an unusually complex process or presents unusual operation or maintenance conditions.~~Considering Applicant's complex treatment system, low phosphorus limit, compliance history, and the unusual condition that Applicant needs to be supervised by a third party to ensure compliance, a revision to the Draft Permit is warranted, requiring the Facility be classified as a Category A system and to require a chief operator with an operator license of Class A or higher, and to require that the third-party operator must meet this same Class A classification.~~

141. Considering Applicant's compliance history, a revision to the Draft Permit is warranted, requiring the third-party operator to conduct effluent monitoring at least twice per month and that this effluent data be included in calculating daily averages.

142. Considering Applicant's compliance history, history of algae growth at and below the outfall, and the ecologically sensitive nature of the River, particularly to nutrient enrichment, a revision to Item No. 9 in the "Other Requirements" section in the Draft Permit is warranted, modifying the language to require Applicant to include parameters from the initial permit issued in 2004~~3~~.

143. [Deleted]~~Considering Applicant's compliance history, a revision to the Draft Permit is warranted requiring that certain information that is collected and reported to TCEQ also be made publicly available, including notification to the public, within 24 hours of instances of noncompliance that the Draft Permit requires be reported to TCEQ within 24 hours.~~

Transcription Costs

144. Reporting and transcription of the hearing on the merits was warranted because the hearing lasted for three days.

145. Each of the non-agency parties, Applicant, Protestant Morris, and the Bunnell Protestants, were represented by outside legal counsel.

146. Both Applicant and Protestant Morris hired expert witnesses for the hearing.

147 Applicant is a municipality.

148. Protestant Morris is represented by a non-profit legal aid organization that provides free legal services to low-income Texans.

149. The Bunnell Protestants consist of a small group of neighbors.

150. The total cost paid by Applicant for recording and transcribing the initial hearing on the merits, two copies of the transcript prepared on a ~~5~~five-day turnaround, and rough draft dailies of the transcript each day, was $9,797.25.

151. Applicant ordered same-day rough drafts and for the transcript to be expedited on a five-day turnaround schedule, without conferring with other parties.

152. Protestant Morris ordered a copy of the transcript from the initial hearing at a cost of $2,243.90.

153. Transcript costs cannot be assessed against the ED or OPIC because they are statutory parties who are precluded from appealing the decision of the Commission.

154. The City's poor compliance history and the extensive degradation of the River as a result of the City's discharge, led to Protestants opposing this permit renewal application.

155. The failure of the City to meet its burden in the initial hearing led to the Remand Hearing.

156. Applicant should pay the full cost of the reporting and transcription costs for both the initial and the remand hearing on the merits and reimburse Protestant Morris for transcript costs incurred.

II. CONCLUSIONS OF LAW

1. TCEQ has jurisdiction over this matter. Tex. Water Code chs. 5, 26.

2. SOAH has jurisdiction to conduct a hearing and to prepare a PFD in contested cases referred by the Commission under Texas Government Code § 2003.047.

3. Notice was provided in accordance with Texas Water Code §§ 5.114 and 26.028; Texas Government Code §§ 2001.051 and .052; and 30 Texas Administrative Code chapter 39.

4. The Application is subject to the requirements in Senate Bill 709, effective September 1, 2015. Tex. Gov't Code § 2003.047(i-1) through (i-3).

5. Applicant's filing of the Administrative Record established a prima facie demonstration that: (1) the Draft Permit meets all state and federal legal and technical requirements; and (2) a permit, if issued consistent with the Draft Permit, would protect human health and safety, the environment, and physical property. Tex. Gov't Code § 2003.047(i-1); 30 Tex. Admin. Code §§ 80.17(c)(1), .117(c)(1), .127(h).

6. To rebut the prima facie demonstration established by the Administrative Record, a party must present evidence that (1) relates to one of the Referred Issues; and (2) demonstrates that one or more provisions in the Draft Permit violates a specifically applicable state or federal requirement. See Tex. Gov't Code § 2003.047(i-2); 30 Tex. Admin. Code §§ 80.17(c)(2), .117(c)(3).

7. Protestants rebutted the prima facie demonstration by presenting evidence demonstrating that one or more provisions in the Draft Permit violate a specifically applicable state or federal requirement that relates to a matter referred by the TCEQ. 30 Tex. Admin. Code § 80.17(c)(2).

8. If a party rebuts the prima facie demonstration, Applicant and the ED may present additional evidence to support the Draft Permit. Tex. Gov't Code § 2003.047(i-3); 30 Tex. Admin. Code §§ 80.17(c)(3), .117(c)(3).

9. Applicant retains the burden of proof on the issues regarding the sufficiency of the Application and compliance with the necessary statutory and regulatory requirements. 30 Tex. Admin. Code § 80.17(a).

10. The standard of proof is by a preponderance of the evidence. *Granek v. Texas St. Bd. of Med. Examn'rs*, 172 S.W.3d 761, 777 (Tex. App.—Austin 2005, no pet.); *Southwestern Pub. Servs. Co. v. Pub. Util. Comm'n of Tex.*, 962 S.W.2d 207, 213-14 (Tex. App.—Austin 1998, pet. denied).

11. The Remand Hearing was to allow the parties to present additional evidence on specified issues. The process of rebutting a prima facie case has previously occurred. Applicant was not entitled to another presumption.

12. The Draft Permit is protective of groundwater.

13. The Draft Permit will not be protective of water quality and will not protect uses of the receiving waters under the TSWQS because it would allow significant increases in nutrient pollutants to be discharged into the River, leading to reduced DO, algae blooms, and an impairment of the designated uses.

14. The Draft Permit does not include appropriate provisions to protect against excessive growth of algae and comply with the aesthetic parameters and requirements of 30 Texas Administrative Code § 307.4, including aquatic nutrient limitations.

14A. The Commission may accept environmental testing laboratory data and analyses for use in Commission decisions regarding any matter under the Commission's jurisdiction relating to permits or other authorizations only if the data and analyses are prepared by an environmental testing laboratory accredited by the Commission. Similarly, an environmental testing laboratory must be accredited according to 30 Texas Administrative Code Chapter 25 if the laboratory provides analytical data that is used for a Commission decision relating to a permit authorization. 30 Tex. Admin. Code §§ 25.1 and 25.4.

15. The Draft Permit does not comply with the TCEQ's antidegradation requirements. 30 Tex. Admin. Code § 307.5.

15A. 30 Texas Administrative Code § 309.13(e) requires a permit applicant to comply with one of three options for abating nuisance odors: a 500-foot buffer zone to the nearest property line for lagoons with zones of anaerobic activity or a 150 foot buffer zone to the nearest property line for all other wastewater treatment plant units; the implementation of an approved nuisance odor prevention plan; or an enforceable restriction against constructing residential structures within any part of a buffer zone not owned by the plant.

16. The Draft Permit adequately addresses nuisance odor in accordance with 30 Texas Administrative Code § 309.13(e).

17. Applicant did not establish by a preponderance of the evidence that the Draft Permit includes adequate provisions to protect the requesters use and enjoyment of their properties.

18. Applicant established by a preponderance of the evidence that the Draft Permit includes adequate provisions to protect the health of the requesters and their families and aquatic and terrestrial wildlife.

19. The TCEQ has the authority to amend the Draft Permit in light of compliance concerns, even if the facility or person has a satisfactory compliance rating.

20. The compliance history of the City at this facility, notwithstanding the "satisfactory" compliance ratings of the City and the facility, raises compliance concerns and presents circumstances that dictate it is appropriate to alter the terms of the ~~d~~Draft ~~p~~Permit.

21. Applicant has shown the need to be able to discharge a maximum amount of 4.0 MGD.

22. Applicant did not establish by a preponderance of the credible evidence that the Draft Permit includes sufficient operational, monitoring, and reporting requirements.

22A. The Texas Water Code gives TCEQ permissive authority to deny or alter the terms and conditions of the proposed permit terms on consideration of need, including expected volume and quality of the influent and the availability of existing or proposed areawide or regional waste collection, treatment, and disposal systems. Texas Water Code § 26.0282.

23. [Deleted]~~Because the Draft Permit does not require the plant operator be a "Class A" operator and the supervising third party need only be qualified to operate a "Class B" facility, the Draft Permit does not require adequate licensing requirements for the operator of the facility or adequate requirements regarding operator supervision.~~

24. No transcript costs may be assessed against the ED or OPIC because the TCEQ's rules prohibit the assessment of any cost to a statutory party who is precluded by law from appealing any ruling, decision, or other act of the Commission. 30 Tex. Admin. Code § 80.23(d)(2).

25. Factors to be considered in assessing transcript costs include: the party who requested the transcript; the financial ability of the party to pay the costs; the extent to which the party participated in the hearing; the relative benefits to the various parties of having a transcript; and any other factor which is relevant to a just and reasonable assessment of the costs. 30 Tex. Admin. Code § 80.23(d)(1).

26. Considering the factors in 30 Texas Administrative Code § 80.23(d)(1), no reporting or transcription costs should be assessed or allocated against the Protestants, but rather Applicant should bear all reporting and transcription costs from both the initial and remand proceedings, including those already paid for by Protestant Morris.

27. Protestants produced sufficient evidence that demonstrates a Total Phosphorus effluent limit of 0.02~~15~~ mg/L or lower is necessary in all phases in order for the Liberty Hill Draft Permit to meet all Texas Surface Water Quality Standards and comply with the State Antidegradation Policy. 30 Tex. Admin. Code §§ 307 *et seq*.

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

1. The Application by the City of Liberty Hill for Texas Pollutant Discharge Elimination System Permit No. WQ0014477001 is approved and the attached permit is issued with the following modifications:

   - a TP effluent limit of 0.02~~15~~ mg/L for all phases; and

   - a modification of the study outlined in "Other Requirements" Item No. 9, to include a nutrient sampling plan that mirrors language in the 2004 permit that requires the permittee to conduct a study of nutrients and algal growth in the receiving stream for at least two years after discharge under the terms of this renewed permit.

   - ~~both the operator and third-party operator must have a Class A license; and~~

~~• public posting and notification of Monitoring and Reporting Requirements Nos. 1 and 7a on a public website dedicated to providing information about the wastewater treatment plant and discharge.~~

2. The City shall pay all of the transcription costs for both the Initial and Remand proceedings and shall reimburse Protestant Morris $2,243.90.

3. The Commission adopts the ED's Response to Public Comment in accordance with 30 Texas Administrative Code section 50.117 to the extent it does not conflict with the Commission's order ~~The Commission adopts the ED's Response to Public Comment in accordance with 30 Texas Administrative Code § 50.117. If there is any conflict between the Commission's Order and the Executive Director's Responses to Public Comments, the Commission's Order prevails.~~

4. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied.

5. The effective date of this Order is the date the Order is final, as provided by Texas Government Code § 2001.144 and 30 Texas Administrative Code § 80.273.

6. TCEQ's Chief Clerk shall forward a copy of this Order to all parties.

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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Jon Niermann, Chairman

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Date Signed