Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Toby Baker, *Executive Director*



Garrett T. Arthur, Public Interest Counsel

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 28, 2022

The Honorable Meitra Farhadi The Honorable Rachelle Robles Administrative Law Judges State Office of Administrative Hearings P.O. Box 13025 Austin, Texas 78711-3025

RE: CITY OF LIBERTY HILL
SOAH DOCKET NO. 582-22-1222
TCEQ DOCKET NO. 2021-0999-MWD

Dear Judge Farhadi and Judge Robles:

Enclosed for filing is the Office of Public Interest Counsel's Closing Argument in the above-entitled matter.

Sincerely,

Pranjal M. Mehta, Attorney

Assistant Public Interest Counsel

cc: Mailing List

SOAH DOCKET NO. 582-22-1222 TCEQ DOCKET NO. 2021-0999-MWD

APPLICATION BY THE CITY	§	BEFORE THE STATE OFFICE
OF LIBERTY HILLFOR RENEWAL	§	
OF TEXAS POLLUTANT DISCHARGE	§	OF
ELIMINATION SYSTEM PERMIT	§	
NO. WQ0014477001	§	ADMINISTRATIVE HEARINGS

OFFICE OF PUBLIC INTEREST COUNSEL'S REPLY TO EXCEPTIONS

TO THE HONORABLE COMMISSIONERS AND ADMINISTRATIVE LAW JUDGES:

The Office of Public Interest Counsel (OPIC) at the Texas Commission on Environmental Quality (TCEQ) files this Reply to Exceptions and respectfully submits the following.

I. Introduction

After reviewing the Proposal for Decision (PFD), Proposed Order, Exceptions to PFD submitted on behalf of Executive Director (ED), Protestant Stephanie Morris, and City of Liberty Hill (City or Applicant) in this matter, OPIC supports the PFD and ALJs' recommendation to approve the draft permit with the following modifications:

- An effluent limit of 0.05 milligrams per liter (mg/L) for total phosphorous (TP) for all phases;
- A requirement for both the operator and third-party operator to have a Class A license;
- Requiring a nutrient sampling plan mirroring language in the 2004 permit, which would include a study of nutrients and algal growth in the receiving stream; 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.

OPIC also continues to maintain its positions presented in the Office of Public Interest Counsel's Closing Brief (OPIC's Closing Brief), attached hereto as Exhibit A for the Commission's convenience and reference. As explained in OPIC's Closing Brief and discussed below, OPIC finds that the City has not met its burden of proof on all the following issues.

II. 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.

OPIC is unpersuaded by the ED's exceptions stating that the TP limit (0.15 mg/L) for all phases in the draft permit will be protective of the receiving waters, including aquatic life uses and aesthetic parameters. OPIC is also unpersuaded by the City's exceptions arguing that the PFD's recommendation that the permit's TP limit be set at 0.05 mg/L is not reasonably supported by substantial evidence. OPIC stands by its findings in OPIC's Closing Brief regarding this issue and agrees with the ALJs' analysis at pages 34-37 of the PFD finding that the preponderance of the evidence indicates that the draft permit will not be protective of water quality and will not protect uses of the receiving waters under the Texas Surface Water Quality Standards because it would allow significant increases in nutrient pollutants to be discharged into the South Fork San Gabriel River (River), leading to reduced dissolved oxygen, algae blooms, and an impairment of the designated uses. OPIC supports the ALJs' findings that the preponderance of the evidence established that reduction of effluent TP is needed, and that 0.05 mg/L is reasonably achievable technology.

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.

OPIC maintains its position in OPIC's Closing Brief regarding this issue and supports the ALJs' analysis that the evidence establishes that nutrients from the proposed discharge will cause excessive growth of aquatic vegetation that impairs the existing and designated uses of the River, and the proposed discharge does not comply with the aesthetic parameters and requirements of 30

Texas Administrative Code (TAC) § 307.4, including aquatic nutrient limitations.

Issue G: Whether the draft permit complies with applicable antidegradation requirements.

As discussed in OPIC's Closing Brief at pages 11-12, this is an exceptional case and in a case like this, the public interest is only served by conducting an antidegradation review. OPIC supports the ALJs' conclusion that the draft permit does not comply with the Commission's antidegradation policy.

III. 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.

OPIC stands by its findings in OPIC's Closing Brief regarding this issue. As discussed in OPIC's Closing Brief at page 14, based on the evidence regarding the present condition of the River, and relying on expert testimony that the proposed discharge would increase the occurrence of algae blooms, OPIC cannot find that the draft permit includes adequate provisions to protect the health of the requesters and their families and aquatic and terrestrial wildlife.

IV. Nuisance Issues

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

OPIC maintains its position that renewal of the permit as it was proposed by the ED would continue to cause algae, and therefore, perpetuate continued nuisance conditions, including odor. Therefore, OPIC supports the ALJs' recommendation to approve the draft permit with the modification to the TP effluent limit to 0.05 mg/L for all phases.

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

OPIC stands by its position in OPIC's Closing Brief regarding this issue and supports the ALJs' findings that the draft permit fails to include adequate provisions to protect the requesters' use and enjoyment of their property. Therefore, OPIC supports the ALJs' recommendation to

approve the draft permit with the modification to the TP effluent limit to 0.05 mg/L for all phases.

V. Compliance History

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

OPIC's position on this issue is set forth in OPIC's Closing Brief at pages 17-18. OPIC concludes that the draft permit should be denied or altered based on the City's compliance history. OPIC supports the ALJs findings that amendment of the draft permit to include additional terms tailored to address Applicant's past violations could provide added constraints and levels of oversight in order to help ensure future compliance, and therefore, additional terms to the draft permit are warranted.

VI. 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.

As discussed in OPIC's Closing Brief, OPIC finds that considering the nature of City's compliance history issues and violations involved in this case, the draft permit should require a Class A operator license. OPIC agrees with the ALJs' finding set forth in the PFD at page 94 that the draft permit should be amended to require that the plant be operated by a Class A license holder. Such a requirement would ensure that operators with the highest license qualification would run and monitor the City's facility, which would result in more reliable operations in the future to preserve water quality.

VII. Conclusion

The Applicant bears the burden of proof on each referred issue. As explained in OPIC's Closing Brief and as discussed above, OPIC continues to find that Applicant did not meet its burden of proof for the above discussed issues. However, OPIC finds that if the draft permit is changed in the ways recommended in the PFD, OPIC would be satisfied that the draft permit would be protective of water quality, existing and designated uses of the receiving waters, and related

concerns.

Given that the plant is currently operating and serving residents of Liberty Hill, OPIC recognizes that outright denial of the City's renewal application may not serve the public interest. Therefore, in lieu of denial, OPIC supports the PFD and the ALJs' recommendation that the draft permit be approved with the following modifications:

- An effluent limit of 0.05 mg/L for total phosphorous for all phases;
- A requirement for both the operator and third-party operator to have a Class A license;
- Requiring a nutrient sampling plan mirroring language in the 2004 permit, which would conduct a study of nutrients and algal growth in the receiving stream; 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.

Respectfully submitted,

Garrett T. Arthur Public Interest Counsel

Pranjal M. Mehta

Assistant Public Interest Counsel

State Bar No. 24080488 P.O. Box 13087, MC 103

Austin, TX 78711-3087

512-239-0574

CERTIFICATE OF SERVICE

I hereby certify that on November 28, 2022, the foregoing document was filed with SOAH, the TCEQ Chief Clerk, and copies were served to all parties on the attached mailing list via hand delivery, facsimile transmission, electronic mail, inter-agency mail, or by deposit in the U.S. Mail.

Pranjal M. Mehta

SERVICE LIST CITY OF LIBERTY HILL SOAH DOCKET NO. 582-22-1222 TCEQ DOCKET NO. 2021-0999-MWD

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EXHIBIT A

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Toby Baker, *Executive Director*



Vic McWherter, Public Interest Counsel

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 12, 2022

The Honorable Meitra Farhadi The Honorable Rachelle Robles Administrative Law Judges State Office of Administrative Hearings P.O. Box 13025 Austin, Texas 78711-3025

RE: CITY OF LIBERTY HILL
SOAH DOCKET NO. 582-22-1222
TCEQ DOCKET NO. 2021-0999-MWD

Dear Judge Farhadi and Judge Robles:

Enclosed for filing is the Office of Public Interest Counsel's Closing Argument in the above-entitled matter.

Sincerely,

Pranjal M. Mehta, Attorney

Assistant Public Interest Counsel

cc: Mailing List

SOAH DOCKET NO. 582-22-1222 TCEQ DOCKET NO. 2021-0999-MWD

APPLICATION BY THE CITY	§	BEFORE THE STATE OFFICE
OF LIBERTY HILLFOR RENEWAL	§	
OF TEXAS POLLUTANT DISCHARGE	§	OF
ELIMINATION SYSTEM PERMIT	§	
NO. WO0014477001	8	ADMINISTRATIVE HEARINGS

OFFICE OF PUBLIC INTEREST COUNSEL'S CLOSING ARGUMENT

TO THE HONORABLE ADMINISTRATIVE LAW JUDGE:

The Office of Public Interest Counsel (OPIC) at the Texas Commission on Environmental Quality (TCEQ) files this closing argument and would respectfully show as follows:

I. INTRODUCTION

On September 5, 2018, the City of Liberty Hill (City or Applicant) applied to the TCEQ for a renewal of TPDES Permit No. WQ0014477001 which authorizes the discharge of treated domestic wastewater from the treatment plant located approximately 8,800 feet southeast of the intersection of U.S. Highway 29 and U.S. Highway 183, in Williamson County, Texas 78641 (Facility). TCEQ issued the City's existing TPDES permit on September 22, 2015.

On October 6, 2021, the Commission considered the hearing requests and requests for reconsideration and the matter was then referred to the State Office Administrative Hearings (SOAH) to conduct a contested case hearing. By an interim order dated October 19, 2021, the Commission referred the following ten issues to SOAH:

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 TAC § 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 TAC § 307.4, including aquatic nutrient limitations;
- E) Whether the draft permit should be denied or altered based on the 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 requesters' use and enjoyment of their property; and
- J) Whether the draft permit includes sufficient monitoring and reporting requirements, including necessary operational requirements.

On March 28, 2022, SOAH conducted a preliminary hearing in this matter via zoom. After the preliminary hearing, the Administrative Law Judge (ALJ) issued Order No. 1 and admitted the following parties: Applicant, ED, OPIC, Stephanie Morris (Protestant Ms. Morris), Daniel Morris¹, Jeff Wiles, and aligned protestants -- Sharon and Terry Ira Cassady, Jackson Cassady, 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 (collectively referred as Bunnell Protestants). The hearing on the merits was conducted via zoom from July 20-22, 2022.

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¹ Applicant filed a motion to withdraw the party status of Daniel Morris (Mr. Morris) in this proceeding and attached correspondence from Mr. Morris indicating his desire to withdraw. The ALJs issued Order No. 8 stating that Mr. Morris is withdrawn as a party.

1. **Burden of Proof**

By rule, the burden of proof is on the moving party by a preponderance of the evidence.² In a permit hearing, the applicant is the moving party. For SB 709 applications, 30 TAC § 80.117(b) states that an applicant's presentation of evidence to meet its burden of proof may consist solely of the filing with SOAH, and admittance by the ALJ, of the administrative record. However, Section 80.17(c)(2) provides that a party may rebut an applicant's prima facie demonstration by presenting evidence demonstrating that the draft permit violates a specifically applicable state or federal legal or technical requirement. If a rebuttal case is presented, section 80.17(c)(3) states that the applicant and the ED may present additional evidence to support the ED's draft permit. Here, the prima facie demonstration has been rebutted on the issues referred to hearing and the applicant maintains the burden of proof by a preponderance of the evidence.

2. Deference to expressions of agency interpretation of law

OPIC submits no argument on this issue.

3. Referred Issues related to regulatory water quality standard

Whether the draft permit is protective of water quality, groundwater, and uses of the A) 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.

The purpose of the Texas Surface Water Quality Standards (Standards) is "to maintain the quality of water in the state consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life." The Procedures to Implement the Texas Surface Water

² 30 TAC § 80.17(a). ³ 30 TAC § 307.1.

Quality Standards (Implementation Procedures or IPs) explain how the Standards are applied to permits issued under the TPDES program.

Stream Standards

The draft permit would authorize discharge into the South Fork San Gabriel River (River) which is designated by TCEQ as Segment 1250 of the Brazos River Basin. ⁴ The designed uses for Segment No. 1250 are primary contact recreation, public water supply, aquifer protection, and high aquatic life use. ⁵ This stream classification requires dissolved oxygen concentration to be maintained with a mean of 5.0 milligrams per liter (mg/L) and a minimum of 3.0 mg/L. ⁶ During spring spawning months, a higher dissolved oxygen standard of 5.5 mg/L on average and 4.5 mg/L minimum must be maintained. ⁷ Numerical stream standards for the Segment 1250 as codified in 30 TAC Sec. 307.10(1) also include total dissolved solids, chloride, and sulfate standards of 350 mg/L, 50 mg/L, and 50 mg/L. ⁸

Effluent concentrations proposed under the draft permit

The proposed draft permit effluent concentration limitations for both the Interim and Final Phases are 5 mg/L 5-day carbonaceous biochemical oxygen demand, 5 mg/L total suspended solids, 2 mg/L ammonia as nitrogen, 16.6 mg/L nitrate as nitrogen, 0.15 mg/L total phosphorous, and 5 mg/L (minimum) dissolved oxygen.⁹ The draft permit includes an interim phase during which the annual average of effluent must not exceed 2.0 million gallons a day (MGD) and a final phase where the annual average flow of effluent must not exceed 4.0 MGD.¹⁰

⁴ Admin. Record, Tab C, pg. 0001.

⁵ Admin. Record, Tab C, pg. 0063.

⁶ 30 TAC § 307.10, Appendix A; Hearing Transcript, p. 635.

⁷ 30 TAC § 307.10, Appendix A; Hearing Transcript, p. 635.

⁸ 30 TAC § 307.10, Appendix A.

⁹ Admin. Record, Tab C, pg. 0002.

¹⁰ *Id*.

Phosphorous limit as recommended by IPs

June 2010 Procedures to Implement the Texas Surface Water Quality Standards (RG-194) suggests that effluent limits for total phosphorus are recommended based on reasonably achievable technology-based limits, with consideration of the sensitivity of the site. ¹¹ Dr. Ross testified that 0.05 mg/L has been demonstrated as reasonable achievable total phosphorous effluent limitation for the City's wastewater. ¹² Dr. Ross further testified that CLEARAS data and the CLEARAS process is one demonstration of reasonably achievable total phosphorous effluent limitation concentration and there may be other ways the City can meet the reasonably achievable total phosphorus standard. ¹³

Minimum Dissolved Oxygen Criteria

TCEQ uses QUAL-TX model to determine whether or not the stream segment will meet the dissolved oxygen (DO) criteria. However, QUAL-TX model does not guarantee the minimum DO criteria will be maintained. ¹⁴ The model does not take into account DO fluctuations or DO minimum and the impact of phosphorus, nitrate nitrogen, and any resulting algae growth. ¹⁵ A failure to meet DO criteria would negatively impact aquatic life use. ¹⁶

Presence of Algae Growth

Protestant Ms. Morris' prefiled testimony¹⁷ and Ms. Morris's expert,¹⁸ Dr. Ryan King's prefiled testimony includes numerous photographs taken at the outfall, upstream of the River, and

¹¹ Procedures to Implement the Texas Surface Water Quality Standards (RG-194) pg. 29.

¹² Hearing Transcript, p. 266, lines 15-18, p. 289, lines 7-12.

¹³ Hearing Transcript, p. 266, lines 15 – 18, p. 267, lines 1-10. The CLEARS pilot study report is included as Exhibit SM-Ross-9.

¹⁴ Hearing Transcript, p. 293, lines 4-7, p. 680, lines 2-14.

¹⁵ Hearing Transcript, p. 678, lines 23-25, p. 679 lines 1-9.

¹⁶ Hearing Transcript, p. 293, lines 8-21.

¹⁷ Ex. SM-Morris-2.

¹⁸ Ex. SM-King-4.

downstream of the River to show algae around the outfall and downstream. Ms. Morris testified that she observed intense algae blooms at the outfall and least up to 3.7 miles downstream. Ms. Morris further testified that the algae emerges even after the cleanup activities are done by the City. 20

The prefiled testimony of Dr. King includes his personal observations, photographs, field measurements, and water sampling data collected during his visit of the River on four different dates -- August 31, 2020, September 7, 2020; April 24, 2021; and April 4, 2022.²¹ Dr. King testified that during his visit on August 31, 2020, and September 7, 2020, he observed a heavy growth of filamentous algae and duckweed at the outfall location²² and downstream of the outfall.²³ Dr. King further testified that during his visit on April 24, 2021, he observed filamentous algae and brown organic sediment at the outfall,²⁴ and growing duckweed on the surface of residual algae mats once the majority of the algae was physically removed by the workers.²⁵ Dr. King also testified that during his visit on April 4, 2022, he observed the heavy growth of filamentous green algae consistent with the blooms that he had observed in the past at outfall location,²⁶ and downstream of the outfall.²⁷ Though the facility's wastewater discharge for four consecutive months of December 2021, January, February, and March 2022, had phosphorous levels that are below 0.15 mg/L,²⁸ Dr. King personally observed numerous algae blooms at the outfall and downstream in the river during his April 2022 visit.²⁹

¹⁹ Hearing Transcript, p. 44, lines 20-25.

²⁰ Hearing Transcript, p. 53, lines 7-18.

²¹ Ex. SM-King pat 8, lines 17-21.

²² SM-King-4, Photo 3.

²³ Ex. SM-King at 13, lines 11-17, Ex. SM-King-4 Photo 4,5,6,8,9.

²⁴ Ex. SM-King-4, Photo 12.

²⁵ Ex. SM-King at 17, lines 15-21, EX. SM-King-4 Photo 13.

²⁶ Ex. SM-King-4, Photo 13, 16, Ex. SM-King at 17, lines 15-21.

²⁷ Ex. SM-King at 18, lines 18-19, p. 19 lines 1-3, Ex. SM-King-4 Photo 17.

²⁸ Hearing Transcript, 483, lines 7-12, Ex. SM-21.

²⁹ Ex. SM-King at 44, lines 16-21, Hearing Transcript, p. 221, lines 21-22.

Recreational Use

The River has primary contact recreation 1 use. This designated use means activities are presumed to occur that involve a significant risk of the ingestion of water, such as wading by children, swimming, tubing, hand fishing, canoeing.³⁰ In Dr. King's opinion, the proposed discharge under the draft permit will result in additional nutrients, particularly phosphorous, which will cause algae to grow, and impair the ability of people to enjoy recreational activities downstream of the discharge.³¹

OPIC's Position

Based on the expert testimony that the facility's wastewater discharge is the primary cause of algae at the outfall and downstream of the outfall, ³² OPIC is not persuaded that the proposed phosphorus limit in the draft permit is adequately protective. OPIC is concerned that algae blooms would continue to thrive, particularly during the final phase when the Applicant would be authorized to discharge up to four million gallons of effluent per day. Also, because of the serious concerns here regarding existing excessive algae blooms and because there is no assurance that the minimum DO criteria will be met in this case, ³³ OPIC is not persuaded that the QUAL-TX model is sufficient to demonstrate compliance with protective DO standards. While the City's daily operations reduced City's daily average effluent concentrations of phosphorous to 0.06 mg/L for January 2022, ³⁴ OPIC agrees with Dr. Ross that a permit limit for total phosphorus lower than 0.15 mg/L needs to be in the permit to ensure that the Facility's total phosphorous concentration

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³⁰ Hearing Transcript, p. 388, lines 9-14.

³¹ Ex. SM-King at 7, lines 22-23, at 8 lines 1-2.

³² Hearing Transcript, p. 209, lines 24-25, p. 210 lines 1-3.

³³ Hearing Transcript, p. 293, lines 4-7, Hearing Transcript, p. 680, lines 1-14. Mr. Michalk also testified that the QUAL-TX model itself also cannot guarantee that 5.0 milligram a liter 24-hour dissolved oxygen average will be met without also taking into account phosphorus. (Hearing Transcript, p. 681, lines 8-12.

³⁴ Hearing Transcript, p. 265, lines 6-12. Ex. App 3 at 15 (Laughlin000015).

is protective of the River and recreational uses of the River.³⁵ Based on the weight of evidence in the record, OPIC cannot find that the draft permit is protective of water quality, groundwater, and uses of the receiving waters under the Texas Surface Water Quality Standards.

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 TAC § 307.4, including aquatic nutrient limitations.

The water quality standard under 30 TAC Sec. 307.4(e) provides that nutrients from permitted discharges or other controllable sources must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use. Also, the rules regarding aesthetic parameters are listed under 30 TAC Sec. 307.4(b). Under 30 TAC Sec. 307.4(b)(4) surface waters must be maintained in an aesthetically attractive condition.

Excessive Growth of Algae

As explained in the discussion of Issue A), the record includes evidence of algae blooms at and around the outfall. Dr. King testified that he considered other potential contributors in his analysis of the algae growth downstream of the outfall and those other sources of phosphorous are not causing the increased algae growth downstream of the outfall.³⁶ Dr. Ross also testified that there are other potential contributors of phosphorous to the River in general, but the algae bloom downstream from the wastewater effluent discharge point is primarily attributable to the facility's effluent discharge.³⁷

The phrase "excessive algae" or "excessive growth of algae" is not defined under the TCEQ rules, but the narrative standards under 30 TAC Sec. 307.4(e) provides that nutrients from

³⁵ Hearing Transcript, p. 285, lines 20-25, p. 286 liens 1-7.

³⁶ Hearing Transcript, p. 146, lines 13-20.

³⁷ Hearing Transcript, p. 240, lines 7-23, p. 291, lines 6-24, p. 292 lines 1-8.

permitted discharges must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use. Here, the River has designated uses of primary contact recreation and high aquatic life use.

Impact of Algae on Primary Contact Recreation

Based on his personal observations of the River and the area around the outfall, Dr. King testified that the area around the outfall is not swimmable and fishable because of the massive amount of algae floating on the surface.³⁸

Impact of Algae on High Aquatic Life Use

The record includes testimony about significant and persistent changes and decreases in the varieties and types of fish and different aquatic and wildlife below the outfall.³⁹ Dr. King testified that algae in the river is already causing major imbalances in the River as he observed invasive species like snails in the River.⁴⁰

Aesthetically Attractive Condition

Dr. King testified that the condition of the River at the outfall and downstream is not aesthetically attractive, ⁴¹ and the proposed discharge under the draft permit will not maintain an aesthetically attractive condition. ⁴²

OPIC's Position

Algae conditions are already bad. Expert opinion in the record states that the nutrients from the proposed discharge would increase the occurrence of algae blooms and shift the algae species present in the waters, ⁴³ OPIC finds that the draft permit provisions are inadequate to protect against

³⁸ Hearing Transcript, p. 220, lines 20-22.

³⁹ Hearing Transcript, p. 75, lines 22-24, p. 76, line 25, p. 77 lines 1-2.

⁴⁰ Hearing Transcript, p. 217, lines 3-4.

⁴¹ Hearing Transcript, p. 222.

⁴² Ex. SM-King at 39 line 6.

⁴³ Ex. SM-Ross at 28, lines 10-11, Hearing Transcript, p. 292 lines 1-8.

excessive growth of algae and comply with the aesthetic parameters and requirements of 30 TAC § 307.4, including aquatic nutrient limitations.

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

The TCEQ's antidegradation rules are covered under 30 TAC Sec. 307.5. 30 TAC Sec. 307.5 states that the antidegradation policy and implementation procedures apply to actions regulated under state and federal authority that would increase pollution of the water in the state. Under 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 the commission's satisfaction that the lowering of the water quality is necessary for important economic or social development. 44 Degradation is defined as a lowering of the water quality by more than a de minimis extent, but not to the extent that an existing use is impaired.

The ED's position is that an antidegradation review is not needed for this application because this application is a renewal to add an interim phase and there will be no increase of pollution compared to existing permit. The ED relied on the IPs to make this determination. ED's expert, Ms. Jenna Lueg, testified that the original antidegradation review still applies as there is no change in discharge amount.

Dr. King's testimony is that the City's discharge under the draft permit will continue to degrade the water and it will not comply with the anti-degradation standard.⁴⁸ He formed his opinion based on his research and personal observations, field work, water sampling at and surrounding the current outfall, lab results, and scientific studies he conducted on this topic.⁴⁹ In

⁴⁵ ED-JL-1 at 8, lines 4-8.

⁴⁴ 30 TAC § 307.5(b)(2).

⁴⁶ ED-JL-1 at 7, lines 21-32, at 8 lines 1-2.

⁴⁷ ED-JL-1 at 8 lines 7-8.

⁴⁸ Ex. SM-King at 44 lines 12-13.

⁴⁹ City's expert, Mr. David Buzan testified that the data Dr. King has collected is the kind of data that any expert in the industry would have used to form the opinion and Dr. King's opinions are reasonable based on the data that he

his opinion, the baseline phosphorous concentration in the upstream River is in the order of 0.007 mg/L and significant biological changes begin to occur roughly around 0.02 mg/L of total phosphorus in streams like the River. Also, phosphorus levels above 0.010-0.015 mg/L are consistently associated with degraded biological conditions, particularly nuisance algae growth. So As discussed earlier, though the facility's wastewater discharge for four consecutive months of December 2021, January, February, and March 2022, had phosphorous levels that are below 0.15 mg/L, So Dr. King personally observed numerous algae blooms at the outfall and downstream in the river during his April 2022 visit. Based on his observations of the River downstream in April 2022, discharges under the existing permit have resulted in a noticeable lowering of water quality.

OPIC's Position

The essence of the antidegradation review under Tier 2 is to ensure no permitted activity lowers water quality from baseline conditions by more than a de minimis extent. TCEQ has not adopted any further definition of "degradation" or "de minimis," but the Texas Third Court of Appeals has summarized the Tier 2 inquiry as follows:

[S]tated generally, to determine whether the proposed regulated activity will result in degradation of water quality, TCEQ rules require a comparison of the baseline water-quality conditions with the conditions that will exist once the permitted activity begins. If the comparison shows no change in water quality, a water-quality improvement, or a de minimis—*i.e.*, "trifling" or "negligible"—lowering of water quality, the antidegradation policy is not implicated. If, however, the comparison shows a loss in water quality that is

reviewed. Mr. Buzan further testified that Dr. King's studies are also something which he can rely on while doing any related study. (Hearing Transcript, p. 380, lines 21-24, p. 382, lines 4-7, lines 11-14).

⁵⁰ Ex. SM-King at 31, lines 17-19, Hearing Transcript, p. 287.

⁵¹ Hearing Transcript, 483, lines 7-12, Ex. SM-21. Dr. King also explained in his prefiled testimony that even when the concentrations of phosphorous in the City's effluent are averaging around 0.07 mg/L, he personally observed the lot of nuisance algae in River in April 2022. (Ex. SM-King at 44, lines 19-21).

⁵² Ex. SM-King at 44, lines 16-21, Hearing Transcript, p. 221, lines 21-22.

⁵³ Hearing Transcript, p. 223, lines 13-19.

more than de minimis, the activity will not be allowed absent a showing that the loss is necessary for important economic or social development.⁵⁴

As explained above, the TCEQ rules for antidegradation require a comparison of the baseline water-quality conditions with the conditions that will exist once the permitted activity begins. Here, the record includes evidence regarding the baseline conditions of the River upstream of the outfall. The record also supports a conclusion that the current impaired conditions at the outfall and downstream have resulted in a noticeable lowering of water quality. Furthermore, the record contains expert opinion that the proposed discharge under the draft permit will continue to degrade the water quality around the outfall and downstream ⁵⁶.

This is an exceptional case. Antidegradation reviews may not be required regularly for renewal of permits that are not authorizing any increase in pollutants, but the premise is that operations under the existing permit have adequately maintained baseline conditions. That's not true here. Clearly, there are problems under the existing permit. In a case like this, the public interest is served only by conducting an antidegration review. A complete record for a case like this should contain comparisions of baseline water-quality conditions -- conditions that would exist *but for* the City's discharge --with conditions that would exist at the 4.0 MGD discharge volume authorized in the final phase of the renewed permit. The antidegration policy can be served only by examining whether operations under the renewed permit would continue to cause more than a de minimus lowering of water quality. Therefore, OPIC concludes that the proposed permit renewal does not comply with the Commission's antidegradation policy.

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⁵⁴ Robertson Cty: Our Land, Our Lives (RCOLOL) v. Tex. Comm'n on Envmt'l Quality, Cause No. 03-12-00801-CV, 2014 WL 3562756 at *8 (Tex. App. --- Austin July 17, 2014, no pet.) (op. on reh'g) (quoting De minimis. Black's Law Dictionary 524 (10th ed. 2014)).

⁵⁵ Hearing Transcript, p. 223, lines 13-19.

⁵⁶ Ex. SM-King at 44, lines 12-13.

4. Wildlife and Health Protection

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

The Standards under chapter 307 of the Commission rule require the discharged effluent to protect human health and propagation and protection of terrestrial and aquatic life. 30 TAC Sec. 307.4(d) states that surface waters must not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life.

Human Health

Dr. Ross explained in her testimony that additional nutrient load in the River would increase the risk of cyanotoxins in the water from the proliferation of cyanobacteria which can include many adverse health effects.⁵⁷ Bunnell Protestants raised concerns regarding the health of the requestors and their families in and around the river in their backyard.⁵⁸

Health of the Aquatic Life and Wildlife

Dr. Ross also testified that there is a list of conditions like dissolved oxygen, total dissolved solids, chloride sulfates, the presence of the algae itself, the presence of cyanotoxins and cyanotic bacteria would also have an impact on aquatic life. ⁵⁹ Dr. King's prefiled testimony explained that the current conditions in the River including the presence of algae, duckweed, and invasive snails and the level of phosphorous in the water body higher than naturally-occurring background levels are collectively reducing dissolved oxygen and adversely affecting aquatic life. ⁶⁰ City's expert, Mr. Buzan also testified that it is important for the health of aquatic life that the minimum DO

⁵⁷ Ex. SM-Ross at 28, lines 11-15.

⁵⁸ Ex. Bunnell Protestants Exhibit 2 at 8, lines 20-29, at 9 lines 1-21.

⁵⁹ Hearing Transcript p. 293, lines 23-25, p. 294 line 1.

⁶⁰ Ex. SM-King at 27, lines 15-23, at 28, lines 1-8.

criteria are met.⁶¹ The record also shows detailed testimony about how aquatic and terrestrial wildlife has changed drastically since the effluent began affecting the river.⁶²

OPIC's Position

OPIC is persuaded by the weight of the evidence that current conditions are not conducive to sustaining aquatic life and terrestrial wildlife.⁶³ Based on the evidence regarding the present condition of the River, and relying on the expert opinion that the nutrients from the proposed discharge would increase the occurrence of algae blooms,⁶⁴ OPIC cannot find that the draft permit includes adequate provisions to protect the health of the requesters and their families and aquatic and terrestrial wildlife.

5. Nuisance issues

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

ED's expert, Mr. Martinez testified that the draft permit adequately addresses nuisance conditions including odor. ⁶⁵ He explained that the application does not require the City to provide information showing how it would meet the buffer zone requirements since this a renewal with minor amendment The draft permit requires continued compliance with the buffer zone requirements of 30 TAC Sec. 309.13 by ownership of the required buffer zone area. ⁶⁶

Ms. Morris and Bunnell Protestants shared their personal experience about nuisance odor and smell due to the current situation of the River. Ms. Morris testified that she experienced nuisance odor -- a stinky smell from muck that accumulates under the algae. ⁶⁷ She also experienced

⁶¹ Hearing Transcript p. 394, lines 17-20.

⁶² Hearing Transcript, p. 75, lines 22-25, p. 105, lines 1-10.

⁶³ Hearing Transcript, p. 225, lines 13-19.

⁶⁴ Ex. SM-Ross at 28, lines 10-11, Hearing Transcript, p. 292, lines 1-8.

⁶⁵ ED-EM-1 at 12, lines 20-21.

⁶⁶ Ex. ED-EM-1 at 12 lines 24-16.

⁶⁷ Hearing Transcript, p. 55, lines 22-25, p. 56 lines 1-3.

an intense chemical smell from the effluent water itself at and around the outfall.⁶⁸ Bunnell Protestants testified that the River smells bad because of the growing algae blooms.⁶⁹ Dr. King also explained that the algae emits a foul odor as it decomposes and that odor would impair the ability of people to enjoy recreational activities downstream of the discharge.⁷⁰

OPIC's Position

As explained earlier, the record supports a conclusion that renewal of the permit as proposed will continue to cause algae⁷¹, and therefore, perpetuate continued nuisance conditions, including odor. Therefore, OPIC cannot find that the draft permit adequately addresses nuisance conditions, including odor.

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

Ms. Morris and Bunnell Protestants testified that the current condition of excessive growth of algae adversely affects their use and enjoyment of their property. They further testified that they cannot enjoy any activity in their back yard. Ms. Morris explained that she cannot walk or swim in the river because of the continues presence of the algae. He testified that TCEQ employees have personally told her not to get in the River without rubber boots and gloves.

OPIC's Position

As explained earlier, the record includes the expert opinion that proposed discharge under the draft permit will result in additional nutrients, particularly phosphorous, which will promote

⁶⁸ Hearing Transcript, p. 55, lines 7-21.

⁶⁹ Hearing Transcript, p. 95, lines 21-25, p. 97, lines 12-14, p. 117, lines 20-22.

⁷⁰ Ex. SM-King at 8, lines 1-2.

⁷¹ Ex. SM-King at 7, lines 22-23, at 8, lines 1-2.

⁷² Ex. SM-King at 14, lines 7-23, at 15, lines 1-16. Ex. Bunnell Protestants Exhibit 1 at 5, lines 8-13, Ex. Bunnell Protestants Exhibit 3 at 5, lines 11-18.

⁷³ Ex. Bunnell Protestants Exhibit 1 at 5, lines 8-13.

⁷⁴ Ex. SM-Morris at 9, lines 4-6.

⁷⁵ Ex. SM-Morris at 14, lines 5-6.

algae growth. ⁷⁶ If algae continues to thrive, it will continue to have adverse effects on Protestants' use and enjoyment of their property. Therefore, OPIC finds that the draft permit does not include adequate provisions to prevent odor or other nuisance conditions nuisance conditions that interfere with the use and enjoyment of property.

6. Effects on permit action of compliance history and regionalization policy

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

The applicable Commission rules regarding compliance history are found at 30 TAC Chapter 60. These rules require consideration of compliance history in the agency's permitting decision. The compliance of the compliance history in the agency's permitting decision. The compliance of the compliance of

The City's compliance history report that was prepared by TCEQ at the time of drafting of the permit shows a classification of "satisfactory" for the compliance history period from September 1, 2013 to August 31, 2018⁷⁸. The City's most recent compliance history report also shows a classification of "satisfactory" for the compliance period from September 1, 2016 to August 31, 2021.⁷⁹ The Bunnell Protestants provided a list of notice of violations (NOVs) issued to the City for the Facility even beyond the August 31, 2021 compliance period which included eight NOVs that have not been considered for calculating the most recent classification.⁸⁰

⁷⁶ Ex. SM-King at 7, lines 22-23, Ex. SM-King at 8 lines 1-2.

⁷⁷ 30 TAC § 60.1(a)(1).

⁷⁸ Admin. Record, Tab C, pg. 0079-0082.

⁷⁹ Ex. ED-AM-3.

⁸⁰ Ex. Bunnell Protestants Cross Exhibit 1.

OPIC's Position

Although, the City's last annually determined compliance history classification was "satisfactory," that classification is not dispositive. Under 30 TAC Sec. 60.3(4)(A)(i), the Commission may consider the entirety of an applicant's compliance history when evaluating an application to renew a permit under Texas Water Code (TWC) Chapter 26; the rule does not limit consideration to the last annual rating and classification. Over the past five years, the City has had multiples issues complying with the material terms of its permit, resulting in three enforcement orders (Docket Nos. 2017-0141- MWD-E, 2018-1024-MLM-E, and 2021-0162-MWD-E) as well as numerous NOVs. These NOVs are components of the City's compliance history, though they have not been reflected in the annual recalculation of the rating and classification. Under 30 TAC Sec. 60.3(g), "any party in a contested case hearing may submit information pertaining to a person's compliance history, *including the underlying components of classifications*, subject to the requirements of § 80.127 of this title (relating to Evidence)." (emphasis added.)

Each of the more recent NOVs is designated as a moderate violation, ⁸² and many of the violations are cause for concern, such as the failure to meet permitted effluent limitations. Effluent limitations are the primary mechanism in Texas Pollutant Discharge Elimination System Permits to control the discharge of pollutants and thus are material terms of the permit. In water quality cases like this when the compliance history raises concerns about the Applicant's ability to comply with the material terms of the permit, Texas Water Code Section 26.028(d) allows for the inquiry to extend beyond whether the applicant is classified as a "satisfactory" performer. The City's history of significant violations may dictate that special provisions are needed to address compliance concerns, regardless of the current "satisfactory performer" classification. Therefore,

⁸¹ Hearing Transcript, p. 316, lines 13-20, p. 317, lines 1-6.

⁸² Hearing Transcript, p. 317, lines 7-10.

OPIC concludes that the draft permit should be denied or altered based on the City's compliance history.

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

OPIC submits no argument on this issue.

7. Permit terms related to facility management and monitoring

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

The ED's expert, Mr. Martinez testified that the draft permit will require an operator with a Class B license as per the rules under 30 TAC § 30.350(e). 83 Also, the draft permit requires the City to hire a third party company to operate and maintain the facility. The third party must hold a valid registration under the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations. 84

Dr. Ross testified that a Class B operator license is not adequate to operate this facility.⁸⁵ Dr. Ross also explained in her testimony that section 30 TAC §30.350(h) allows the ED to increase the treatment facility classification for facilities that include unusually complex processes or present unusual operation or maintenance conditions.⁸⁶ Dr. Ross testified that it is appropriate in this case to require a higher level of facility operator classification for a number of reasons.⁸⁷ First, the operator should have sufficient experience to incorporate day-to-day learning into managing

⁸³ Ex. ED-AM at 8, lines 5-11.

⁸⁴ Admin. Record, Tab C, pg. 0037.

⁸⁵ Ex. SM-Ross at 39, lines 26-29, at 40 lines 6.

 $^{^{86}}$ Ex. SM-Ross at 40, lines 8 - 10.

⁸⁷ Hearing Transcript, p. 282, lines 12 - 14.

operations under the facility's the phosphorous limit. Second, the facility includes MBR wastewater treatment which is a more sophisticated and uncommon treatment technology. Operators with the highest possible license classification should run and monitor such a facility. Third, considering the huge algae bloom in the River, higher licensing requirements for the operator of the facility may result in more reliable operations to preserve the water quality.

OPIC's Position

The rules require a class B operator for a facility of this size. The record shows that the facility's current plant operator, David Thomison, is a Class A operator, ⁹¹ however, the draft permit does not require a Class A license and, even when the facility is operated by a third party, there is no guarantee under the draft permit that future operators will hold such a license. Considering the nature of City's compliance history issues and violations involved in this case, the draft permit should require a class A operator license.

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

OPIC submits no argument on this issue.

8. <u>Allocation of Transcript Costs</u>

Under 30 TAC § 80.23(d)(2), OPIC, as a statutory party, cannot be assessed reporting or transcription costs. Therefore, OPIC takes no position on this issue and defers to those parties who have incurred or may be responsible for transcript costs.

⁸⁸ Hearing Transcript, p. 282, lines 17 - 23.

⁸⁹ Hearing Transcript, p. 282, lines 24-25, p. 283, lines 1-3.

⁹⁰ Hearing Transcript, p. 283, lines 4-10.

⁹¹ Ex. App-9 at 4 (Thomison 000004).

IV. Conclusion

For the reasons discussed above, OPIC concludes the City has not met its burden of proof with respect to Issues A, B, C, D, E, G, H, and I referred to hearing by the Commission.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on August 12, 2022, the foregoing document was filed with SOAH, the TCEQ Chief Clerk, and copies were served to all parties on the attached mailing list via hand delivery, facsimile transmission, electronic mail, inter-agency mail, or by deposit in the U.S. Mail.

Pranial M. Mehta

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