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

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

PROTESTANT STEPHANIE RYDER MORRIS'S REPLY TO EXCEPTIONS TO THE PROPOSAL FOR DECISION

November 28, 2022

TABLE OF CONTENTS

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TO THE HONORABLE COMMISSIONERS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

Protestant Stephanie Ryder Morris submits this Reply to Exceptions to the Proposal for Decision ("PFD") of The City of Liberty Hill ("City") and the Executive Director ("ED") relating to the Application by the City of Liberty Hill ("Liberty Hill", "the City", or "Applicant") for renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014477001. Protestant Morris's exceptions and this reply incorporate by reference her closing arguments and response to others' closing arguments. Protestant Morris also incorporates her exceptions here by reference.

I. SUMMARY

The ALJs properly found that the Draft Permit will not be protective of the water quality in the South Fork San Gabriel River and that additional terms must be added to the Draft Permit due to the City's poor compliance history (among other things). The ED and the City failed to produce evidence to overcome that put on by the Protestants. The Draft Permit should be denied, or if it is not denied, it should be altered in accordance with those modifications suggested by the ALJs and re-written by Protestant Morris in her Exceptions to the Proposal for Decision, with additional protections for the River if the City cannot immediately come into compliance.

II. REPLY TO EXCEPTIONS BY THE EXECUTIVE DIRECTOR

A. There Is Ample Evidence in the Record Concerning the Continued Negative Effect the Terms of the Draft Permit Would Have on the River.

The ED's claim that there was no evidence presented at the hearing that the Draft Permit, if complied with, would not "significantly improve conditions downstream of the discharge point"[1] works from a legally irrelevant conclusion and is demonstrably false. First, the legal requirement is whether the Draft Permit includes all the requirements necessary to achieve applicable water quality standards.[2] And second, there is plentiful evidence in the record that the terms of the Draft Permit will not significantly improve the condition of the River and will continue to lead to violations of the Texas Surface Water Quality Standards (TSWQS), as found by the ALJs.

1. "Significant Improvement" Is Legally Irrelevant.

As mentioned, the relevant question is whether the Draft Permit includes all requirements necessary to achieve applicable water quality standards, as a permit may not cause or contribute to a violation of applicable water quality standards, "including State narrative criteria for water quality."[3] This legal requirement is reflected in the issues that were referred for consideration during the contested case hearing, such as whether the draft permit is protective of water quality, ground water, and uses of the receiving waters. Significantly improving the current conditions downstream of the discharge point does not mean that the applicable water quality standards will be met. This is especially true in a case such as the one at hand, where the South Fork San Gabriel River ("River") has been degraded beyond recognition by the City's effluent. Significant improvement could easily still include violations of the water quality standards. The metric

[1] Executive Director's Exceptions to the Proposal for Decision (hereinafter "ED's Exceptions") at 4.
[2] The TCEQ rules mandate that a permit must include all requirements necessary to achieve applicable water quality standards. 30 Tex. Admin. Code § 305.531(4) (incorporating by reference 40 C.F.R. § 122.44(d)(1)).
[3] 40 C.F.R. § 122.44(d)(1)(i).

espoused by the ED is legally irrelevant and does not go to any of the issues referred by the Commission.

2. The Terms of the Draft Permit Will Cause Violations of the TSWQS.

Not only is the argument put forth by the ED legally irrelevant, it is also conclusory in nature. By erroneously claiming no evidence was presented on this irrelevant standard, the ED conveniently avoids addressing the voluminous evidence in the record concerning the continued negative effect the terms of the Draft Permit would have on the River. This includes evidence that a limit of 0.15 mg/L total phosphorus would not significantly improve the conditions in the River, even if the City began a new streak of actual compliance under a third-party operator. As recognized by the ALJs in the proposed Findings of Fact, the South Fork San Gabriel River naturally has low levels of total phosphorus – at or below 0.01 mg/L.[4] The stream, in its natural state, is clear, low flow, and low in nutrients, with limited aquatic vegetation.[5] It is the unequivocal opinion of Dr. King, who has studied extensively the effect of phosphorus input on low nutrient Hill Country streams, that a total phosphorus limit of 0.15 mg/L is too high to protect the water quality in the River.[6] Dr. King's previous work demonstrates that, at concentrations of around 0.02 mg/L of phosphorus, algal blooms occur in Central Texas rivers.[7] And some of his research has suggested that this threshold may be even lower than 0.02 mg/L.[8] In his direct testimony, Dr. King addressed, in detail, how an effluent discharge limit of 0.15 mg/L total phosphorus would continue

[4] Proposed Order Granting the Application by City of Liberty Hill for Renewal of TPDES Permit No. WQ001447001, Finding of Fact 57, at 11 (hereinafter "Proposed Order"); *see also* Protestant Stephanie Ryder Morris's Written Closing Arguments (hereinafter "Morris Closing") at 10-11; Ex. SM-King 15:9-10 and 18:12-17; Ex. SM-King-5 at 1-2 (figures 1 and 2) and 4-5 (figures 5 and 6); Ex. SM-Ross-3.
[5] Morris Closing at 8-11 (background conditions of River); *see e.g.* Ex. SM-King 13:5-10, 17:10-14, 18:10-17, and 29:10-22. See below for representative photo taken by Protestant Morris.
[6] Ex. SM-King 44:21-25 and 50:17-22.
[7] Ex. SM-King 32:10-13 and 35:8-9 (reports themselves available at Ex. SM-King-6 and Ex. SM-King-7 – *see e.g.*, conclusions on page 106 of Ex. SM-King-7).
[8] Ex. SM-King 31:12-19 and 34:1-4.

causing the growth of excessive algae, impairing the uses of the River, making it aesthetically unattractive, and degrading its condition.[9]

Dr. Ross's analysis of the available literature and her testimony reflect this as well.[10] Dr. Ross not only examined studies such as the ones performed by Dr. King, she also reviewed a wide-reaching EPA analysis of the streams in the same sub-ecoregion as the South Fork San Gabriel, which suggests that the boundary between oligotrophic and mesotrophic streams in this region is around 0.025 mg/L of phosphorus.[11] She also cites to a study by the City of Austin, which utilized nutrient modelling and found that even a wastewater discharge with a similar concentration of total phosphorus to the limit proposed under the Draft Permit would cause eutrophication of the South Fork San Gabriel River.[12]

And these expert opinions are supported by observations made by some of the Protestants. The City of Liberty Hill discharged a daily average of approximately half the proposed permit's total phosphorus limit of 0.15 mg/L for the months of December 2021 and January, February, and March 2022.[13] Despite this, conditions in the river did not change.[14] Additionally, Dr. King visited the River on April 4, 2022, and observed the heavy growth of filamentous green algae, consistent with what he had seen in the River during the previous two years.[15] In April and May 2022, the City spent weeks cleaning the algae from the area immediately around and downstream of the

[9] Ex. SM-King 38:6-45:13.
[10] Ex. SM-Ross 23:20-24:8 (discussing findings of EPA study); Ex. SM-Ross 24:10-19 and 24:29-25:5 (discussing 2009 King/Winemiller study); Ex. SM-Ross 26:27-27:12 (discussing Taylor, et al. study).
[11] Ex. SM-Ross 23:27-29; SM-Ross-4 (complete EPA analysis, see in-document page 22). For more information on oligotrophic vs. mesotrophic vs. eutrophic, *see* Ex. SM-Ross 12:7-25. In short, an oligotrophic stream has high quality, clear water, high dissolved oxygen, and excellent aquatic animal habitat, while eutrophic streams are high in nutrients and algae and are generally murky and have lower dissolved oxygen. Mesotrophic streams have water quality between the two.
[12] Ex. SM-Ross 26:1-10. *See* SM-Ross-15 for report on the nutrient modelling study.
[13] Ex. SM-21 at 1-4.
[14] *See* Ex. SM-Morris-2, photos 12-13 (p. 11-12), 59-67 (p. 45-49), and 71-74 (p. 52-53) showing river downstream of outfall still full of algae during or shortly after December 2021-March 2022; Ex. SM-Morris-8 (video taken at outfall, showing upstream, at, and downstream of outfall on June 2, 2022).
[15] Ex. SM-King 18:18-19 and 19:1-3.

outfall.[16] This algae grew back within days or weeks, growing back fastest near the outfall and the fresh effluent.[17] Additionally, the long stretch of white rocks on the riverbank over which the effluent flows become covered in algae and vegetative growth.[18] These rocks were cleaned or replaced as part of the cleaning in spring 2022, but the algae on them returned.[19] These rocks are not in the River and are thus unaffected by any pre-existing phosphorus or algae present in the River.

The ED's exceptions also ignore the fact that the final phase of the Draft Permit – 4.0 million gallons a day (MGD) – allows for the same total phosphorus loading as does the phase of the permit under which the City is currently operating.[20] The Draft Permit, as it is written without the ALJs modifications, does not ultimately reduce the amount of phosphorus discharged into the River. As explained by Dr. King, "the single-most important impact on the river comes from the total load of phosphorus, not simply the concentration of phosphorus in the effluent."[21]

In short, Protestants presented ample evidence at the hearing on the merits that the Draft Permit's proposed effluent level of 0.15 mg/L total phosphorus would not meet the TSWQS. This evidence was in the form of reliable testimony by both fact and expert witnesses on the subject and includes: personal observations made by fact witnesses of the conditions of the River, as documented through numerous photos and videos taken at, above, and below the outfall under

[16] Ex. SM-Morris 18:23-20:12; Ex. SM-Morris-2, photos 69-70 (p. 51); Ex. SM-Morris-7 (video of workers in river); Ex. SM-17 (video of workers speaking with Dr. King); Tr. Vol. 1, 51:7-53:18 (Morris); Tr. Vol. 1 95:2-96:14 (Engelke).
[17] Tr. Vol. 1, 52:19-53:18 (Morris); Tr. Vol. 1, 96:19-97:5 (Engelke); Ex. SM-Morris 20:6.
[18] These rocks grow algae to the point that the City regularly power washes them. Tr. Vol. 1, 95:12-20 (Engelke); Ex. SM-Morris 19:1-16.
[19] Ex. SM-Morris-8 (video - rock discussion at 1:06).
[20] Protestant Stephanie Ryder Morris's Responses to Written Closing Arguments (hereinafter "Morris Response to Closing") at 13. At 1.2 MGD and 0.5 mg/L total phosphorus (the current permit phase), the limit for phosphorus loading is five pounds a day. At the proposed interim phase of 2.0 MGD and .15 mg/L total phosphorus, this does reduce to 2.5 pounds a day, but this returns to five pounds at day in the final phase of 4.0 MGD at 0.15 mg/L total phosphorus. These numbers can be found at SM-3 at 24 and A.R. Tab C at 0002-0005.
[21] Ex. SM-King 48:19-20.

various conditions;[22] personal observations by two expert witnesses, including Dr. King, who took water quality samples at, above, and below the outfall, and documented his personal observations of the conditions of the River with photos and videos;[23] directly relevant studies conducted by Dr. King on the impacts of phosphorus concentrations and loading on algae growth;[24] on literature reviews by Dr. Ross;[25] and on the vast and highly relevant experience of both Dr. Ross and Dr. King in analyzing the impacts of wastewater and nutrient enrichment on Texas Hill Country streams. Protestants presented evidence demonstrating that the Draft Permit violates the TSWQS, and as the ED's exceptions help to demonstrate, the ED has not addressed that evidence with anything other than conclusory statements that the Draft Permit will not violate the TSWQS. Thus, the Draft Permit's terms, even with perfect compliance and the oversight of a third-party operator, will not protect the water quality of the South Fork San Gabriel River and would continue to severely degrade the River.

B. A Class A Operator Requirement Will Help Ensure Compliance and Protect the Water Quality of the River.

In the PFD and Proposed Order, the ALJs recommend that the wastewater operator for the City, as well as the third-party operator required under the Draft Permit, be Class A. The ALJs cite the City's extensive history of repeated noncompliance, as evidenced by the numerous administrative decisions and notices of violation, in addition to the fact that the Applicant's compliance score has deteriorated considerably just during the pendency of the renewal

[22] *See e.g.*, Ex. SM-Morris 7:13-14:6; Ex. SM-Morris-2 (photos); Ex. SM-Morris-8 (video of June 2, 2022 conditions at outfall).
[23] *See* Ex. SM-King 12:22-21:17 (testimony concerning visits to the River); Ex. SM-King-4 (photos); Ex. SM-King-5 (figures summarizing sampling results); Ex. SM-16 (2020 drone video); Ex. SM-19 (2022 video). Dr. Ross also visited the stream in-person and made observations. Ex. SM-Ross at 15:27-16:8; Ex. SM-Ross-8 (photos).
[24] *See* Ex. SM-King-6 and Ex. SM-King-7.
[25] *See* footnote 10 above.

application.[26] They also recognize that the notices of violation decreased after the hiring of Mr. Thomison, the City's current double-A operator.[27]

As already addressed in her Exceptions, Protestant Morris supports this Class A requirement. The ED is correct that, generally, a system of the size and type of Liberty Hill's wastewater treatment plant only requires a Class B operator.[28] However, the Executive Director has the discretion to "increase the treatment facility classification for facilities which include unusually complex processes or present unusual operation or maintenance conditions."[29] The record contains abundant evidence supporting a finding that a Class A operator is necessary in this case.[30]

Dr. Ross testified that for membrane bioreactor technology to be reliably operated and regularly achieve total phosphorus effluent levels as low as 0.15 mg/L, an operator with either training or experience in this particular type of system would be essential.[31] She also testified that some of the City's past compliance violations were concerning, and indicated that a more experienced operator would be useful.[32] It is her opinion that the Draft Permit should require a Class A operator.[33] Mr. Laughlin, testifying for the City, said that a Class B operator could operate the Liberty Hill facility "*with the manufacturer's support*" – not that a Class B operator could do it alone.[34]

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[26] Proposal for Decision, Application by the City of Liberty Hill for Renewal of Texas Pollutant Discharge Elimination System Permit No. WQ0014477001, Docket No. 582-22-1222, at 94 (hereinafter "PFD").
[27] *Id.*
[28] *See.* 30 Tex. Admin. Code § 30.350(e), (i).
[29] 30 Tex. Admin. Code § 30.350(h).
[30] *See* Morris Closing at 68-73.
[31] Ex. SM-Ross 40:3-6 and 40:13-16. MBR (membrane bioreactor) technology is what is used by the City in its wastewater plant. *See* PFD 5-7. Dr. Ross also noted that MBR wastewater treatment plants are still somewhat uncommon in Texas. Tr. Vol. 1, 282:24-283:3 (Ross).
[32] Tr. Vol. 1, 282:4-283:10 (Ross).
[33] Ex. SM-Ross 39:26-40:16; Tr. Vol. 1, 247:17-19 (Ross); Tr. Vol. 1, 282:4-285:7 (Ross).
[34] Ex. APP-3 18:7-8 (emphasis added).

Additionally, as emphasized by the ALJs, the City has a long history of noncompliance with its permit, which has involved a variety of violations, including failures to meet permit limits for pollutants like phosphorus and ammonia nitrogen.[35] Insofar as the City has previously struggled to comply with these limits, it is clear both that a) the plant requires someone more experienced to operate it, and b) failures to meet the permit limits would continue or, more likely, increase with a total phosphorus limit of 0.15 mg/L instead of the current 0.5 mg/L. It is undisputed that having a Class A operator, Mr. Thomison, operating the City's plant has led to improvements in compliance and the quality of wastewater effluent discharged into the River. However, as discussed in Protestant Morris's closing arguments, even Mr. Thomison has struggled to meet the 0.15 mg/L total phosphorus limit originally proposed for the Draft Permit.[36] This makes it clear that operating the plant within the limits of the City's renewed permit will require the additional training and experience held by a Class A operator. And, if the total phosphorus limit is reduced to 0.05 mg/L, as recommended by the ALJs, it will be imperative to have an operator with a higher classification running the plant, especially if new technology is needed to meet this limit.

A Class A operator must be made a condition of the permit. Without such a requirement written into the permit, if Mr. Thomison leaves his post with the City, there is nothing stopping the Applicant from hiring a Class B operator to replace him. For the same reasons discussed above, the third-party operator required under the Draft Permit should be a Class A operator, so that the operator has the experience and training to help operate and supervise the plant effectively.[37]

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[35] PFD at 94; *see e.g.*, Bunnell Protestants Exs. 1-6, 1-7, 1-8, and 1-9; Ex. SM-Morris-5 and Ex. SM-Morris-6.
[36] Morris Closing at 69-71; *see e.g.*, Ex. SM-21 (discharge reports) and Tr. Vol. 2, 451:24-452:7 (Thomison).
[37] As the ED does not except to the ALJs recommendation that the third-party operator perform effluent sampling at least twice a month of all effluent characteristic included in the draft permit and that these results be included in calculating daily averages reported as part of the Applicant's discharge monitoring report, Protestant Morris will assume that the ED agrees with this recommendation. PFD at 93-94.

C. A Nutrient Sampling Plan Will Help the City Track Its Impacts on the River and Provide Data for Future TCEQ Actions.

The ALJs recommend the inclusion of a nutrient sampling plan that mirrors the language requiring such a study in the 2004 permit. The ED's exceptions to this recommendation reveal a misunderstanding of the purpose of the study.

The ED claims that, because there is a Surface Water Quality Monitoring (SWQM) station nearby, the Applicant must monitor the effluent under the permit, and a total dissolved solids (TDS) study is required under the Draft Permit, that a nutrient study would not increase the protectiveness of the permit.[38] This is incorrect. The purpose of the study is nutrient input and algae response monitoring – this is made very clear in the 2004 permit. Nutrient concentrations are to be measured in the effluent, and both nutrient concentrations and the growth of attached algae are to be measured within the stream itself.[39] The point of such monitoring in 2004 was the same as it would be now: to observe and gather data on how the nutrients from the wastewater are affecting the growth of algae in the River, such that this information can be used to inform the Applicant and the TCEQ going forward.[40] This data would inform any future permit amendments, antidegradation reviews, etc.

While the SWQM data has its uses, it does not perform the same function as a nutrient input and response study that is tailored to the concerns at hand. First, SWQM stations are limited and none are immediately adjacent to the City's outfall. Second, this monitoring data is not particularly regular and likely does not include each necessary parameter.[41] And third, the SWQM samples are tested with too high of a detection limit for phosphorus to accurately depict the

[38] ED's Exceptions at 5.
[39] Ex. SM-24 at 26 (2004 Liberty Hill Permit, Other Requirements No. 10, p. 24).
[40] Specifically, results of the study mandated in the 2004 permit were to evaluate the effectiveness of the discharge limits, which could lead to more stringent permit controls, if warranted. *See* Ex. SM-9a at 1-2.
[41] SWQM station locations and data can be explored here: https://www.tceq.texas.gov/waterquality/monitoring.

phosphorus concentration in the stream.[42] A nutrient study under the Draft Permit would require regular sampling at locations upstream and downstream of the outfall. It would also focus not only on nutrient concentrations, but algae growth and coverage.

The ED is correct that the permit already requires testing of the wastewater treatment plant's effluent. This is an element of the nutrient study recommended by the ALJs. However, it misses the other elements, which are testing for nutrient concentrations within the stream, and measuring the growth of algae in the stream. Testing the effluent is the nutrient input part of the study, with no response monitoring.

And finally, the Draft Permit does require a TDS source identification and reduction study. This is wholly irrelevant to a nutrient study. The TDS study is meant to identify where influent containing elevated levels of TDS is coming from and how these levels might be reduced.[43] This is unrelated to nutrient concentrations in the treated effluent, and does not provide any of the data that would be collected in a nutrient sampling study.

Again, the purpose of the "nutrient sampling plan" recommended by the ALJs is to gather data concerning the nutrients entering the River from the discharged effluent and how these nutrients affect the River, mostly specifically through the measurement of algae growth. This is especially critical as the limit for total phosphorus is lowered significantly. No pre-existing studies or data required by the Draft Permit or elsewhere can take the place of this study, which will generate information that allows the Applicant and TCEQ to further improve the permit and protect the River.

[42] Tr. Vol. 2, 375:4-376:16 (Buzan).
[43] *See* A.R. Tab C at 0038.

D. The Applicant's Compliance History Warrants a Permit Requirement that It Post Certain Information on a Public Website.

As found by the ALJs, the "Applicant has failed to meet its burden of proof to demonstrate that it consistently and sufficiently meets compliance requirements imposed by the Commission."[44] Because of this poor compliance history, the Commission has the authority to add additional terms to the Draft Permit.[45] The ALJs correctly found that additional monitoring and reporting requirements would help improve future compliance, including the posting of certain information that the City reports to TCEQ on a public website.[46]

Protestant Morris has already addressed the importance of such a requirement in her Exceptions.[47] In summary, providing the public easy access to this information allows for public oversight. It also allows the public to protect itself from the effluent when the City is not in compliance. It is because of the City's bad compliance history that many people, including the Protestants, have concerns about the treated wastewater discharged into the stream. And it is ultimately the public that has held the City accountable for this poor compliance record.

The ED excepts to this requirement because there is no specific rule requiring this posting. As addressed above, the Commission has the authority to add additional terms to the Draft Permit, based on the Applicant's compliance history. Publicly posting the information provided to the TCEQ under Monitoring and Reporting Requirements Nos. 1 and 7a is a permit term that would

[44] PFD at 96.
[45] *Id.*; 30 Tex. Admin Code § 60.3(a)(2).
[46] PFD at 96-97. This should not be an overly burdensome requirement, as the City already provides some of this information on its website. *See* https://www.libertyhilltx.gov/452/Water-Test-Results.
[47] *See* Stephanie Ryder Morris's Exceptions to the Proposal for Decision (hereinafter "Morris Exceptions") at 19-20 and 22-23. Protestant Morris maintains that this information should also be "pushed" to the public via a text/email alert, as well, as addressed in her Exceptions at 19-20 (and that any posting online or text/email notification should be provided contemporaneously with the reporting done to TCEQ).

be directly responsive to the City's previous and ongoing compliance issues, as it would provide for additional public oversight and encourage the City to improve its compliance record.[48]

Furthermore, TCEQ does require internet posting of certain information related to other types of permits in order to "promote public access" to that information.[49] Although there is no such requirement codified in a rule for water quality permits specifically, it does demonstrate that a public internet posting requirement has value and can be implemented and enforced.

III. REPLY TO EXCEPTIONS BY THE CITY OF LIBERTY HILL

A. Applicant's Exceptions Were Untimely Filed.

The Applicant's Exceptions were untimely filed, i.e., after the 5 pm deadline on November 14, and should not be considered by the Commission In the event the Commission elects to consider those exceptions, Protestant Morris makes the following replies.

B. The Proposal for Decision Appropriately Recommends that the Permit's Total Phosphorus Limit Be 0.05 mg/L.[50]

1. The Evidence in the Record Supports the ALJs' Recommendation for a Reasonably Achievable Technology-Based Limit for Total Phosphorus.

In attempting to attack Dr. Ross's testimony, the City explains exactly why the evidence in the record shows that a limit of 0.05 mg/L total phosphorus (at the very least) is reasonably achievable and why Dr. Ross's opinion as to this issue is firmly supported: at least one company, CLEARAS, has guaranteed an average effluent concentration of 0.05 mg/L total phosphorus to the Applicant;[51] CLEARAS has achieved 0.05 mg/L total phosphorus and lower in a variety of other

[48] Monitoring and Reporting Requirement 1 relates to reporting general effluent testing results while Requirement 7a requires reporting to the TCEQ noncompliance which may endanger human health or safety or the environment. A.R. Tab C at 0008-0010.
[49] *See* 30 Tex. Admin. Code § 330.57(i) (Permit and Registration Applications for Municipal Solid Waste Facilities); *see also* 31 Tex. Reg. 2509 (2006) (adopting new § 330.57(i)).
[50] Protestant Morris maintains her exception to 0.05 mg/L as the recommended phosphorus limit as briefed in her exceptions to the PFD. *See* Morris Exceptions at 1-4. She will not, however, re-address that issue here.
[51] Tr. Vol. 1, 264:20-265:1 (Ross).

projects[52], in addition to performing a pilot study at Liberty Hill (where it produced effluent with total phosphorus levels around 0.01 and 0.02 mg/L) and authoring a written report on this pilot, providing the basis for Dr. Ross's testimony that CLEARAS could achieve 0.02 mg/L;[53] and there are a variety of other wastewater plants that have reached such low levels of phosphorus in their discharge.[54] The City acknowledges this evidence was admitted into the record and that the ALJs relied on it, but then attempts to argue that it is hearsay. This is inappropriate for a few reasons.

First, if the City found either Dr. Ross's testimony or the information on which she relied in formulating that testimony to be worthy of objection, it had the obligation to object either before or during the contested case hearing. It had ample opportunity to do so, as Dr. Ross's pre-filed testimony addresses the reasonably achievable technology-based limit and includes the CLEARAS and EPA reports as exhibits. And, in fact, the City did object to parts of Dr. Ross's testimony that address what a reasonably achievable technology-based limit would be. But. none of the City's objections to Dr. Ross's testimony related to hearsay and all its objections were denied at the prehearing conference. The City did not object to any of the exhibits attached to Dr. Ross's testimony. If the City questioned the credibility of the facts or data on which Dr. Ross relied, it should have included those exhibits in its motion to strike and obtained a ruling from the ALJs, who, as the finders of fact, are the appropriate arbiters of the reliability and admissibility of testimony or other evidence.

Additionally, the City had the opportunity to cross examine Dr. Ross on her opinion concerning the reasonably achievable technology-based limit and any facts or data she based her opinion on. And the City did question her directly about her opinions on this limit and CLEARAS.

[52] Ex. SM-Ross-10.
[53] Ex. SM-Ross-9.
[54] SM-Ross-18.

However, once again, the City did not object as to hearsay. The City failed even to include such alleged concerns in its closing arguments or replies to the Protestants' closing arguments, when the ALJs may have taken such concerns into account while crafting the Proposal for Decision.[55] Regardless, the ALJs, who reviewed the record in its entirety and were present during all live expert testimony at the hearing (and are, thus, best equipped to make a judgment concerning witness credibility), found Protestants' evidence credible, including Dr. Ross's testimony, and that such evidence supported a 0.05 mg/L total phosphorus limit.

Second, the Texas Rules of Evidence clearly state that "An expert may base an opinion on facts or data in the case that the expert has been made aware of, reviewed, or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted."[56] Dr. Ross is an engineer with a PhD and decades of experience relevant to the case at hand. She based her testimony, including her opinion concerning what concentration of phosphorus reflects a reasonably achievable technology-based limit, on facts and data other experts in her field would rely upon, including a pilot study by CLEARAS that was tailored to the City of Liberty Hill's wastewater effluent, results from other CLEARAS projects, and reports published by the Environmental Protection Agency studying wastewater plants that achieve low levels of phosphorus. Based on its exceptions, the City's position appears to be that expert witnesses may not rely on studies, reports, or other sources of information authored by those who are not the expert themselves – a position contrary to both the Texas Rules of Evidence and common sense.

[55] Though the time to object to evidence had passed, the City could have made arguments as to the proper weight the ALJs assigned to the evidence it disputed was hearsay.
[56] Tex. R. Evid. 703.

Again, if the City believed that Dr. Ross's testimony, or particular data on which she based that testimony, was objectionable, it had the opportunity and the obligation to bring this complaint to the ALJs attention before the hearing, during the hearing, or even in its closing briefing, when the adversarial process could have examined the legitimacy of the complaint. The City did not do this.

Third, the City criticizes Dr. Ross's conclusions, but did not present evidence when the record was open to refute them. Stepping back for a moment, it is important to clarify Protestant Morris's position and Dr. Ross's testimony concerning the reasonably achievable technology-based limit for total phosphorus. It is neither Protestant Morris's, nor Dr. Ross's, opinion that CLEARAS is the technology that the City must implement to achieve a 0.05 mg/L total phosphorus average.[57] A reasonably achievable technology-based limit here is a numerical limit for total phosphorus, based on wastewater treatment technology that is reasonably achievable – a particular technology is not prescribed. Per the Procedures to Implement the Texas Surface Water Quality Standards ("IPs"), this limit must also take into consideration the sensitivity of the site.[58] The City can reach 0.05 mg/L total phosphorus using whatever technology it so chooses. Protestant Morris offers evidence, mainly through Dr. Ross's testimony and the documents and reports on which that testimony is based, that 0.05 mg/L is the appropriate limit – that there are technologies in existence that reasonably can reduce the concentration of total phosphorus in the City's wastewater to that level. Dr. Ross's opinion that 0.05 mg/L total phosphorus is a reasonably achievably technology-based limit is not based solely on, for example, the CLEARAS report and pilot project (which she also visited and discussed with the company), it is based on the combination of this pilot and report, the many other projects and demonstrations in which CLEARAS met such a low phosphorus

[57] Tr. Vol. 1, 266:8-22.
[58] ED-JL-3 at 29 (citations to the IPs will use the pagination of the IPs document, not the exhibit).

concentration, and the EPA literature concerning the variety of other wastewater plants that have achieved high phosphorus reduction at a reasonable price.

Beyond this, the City is trying to shift the burden of proof on to the Protestants, impermissibly. The Applicant must establish by a preponderance of the evidence that the Application would not violate applicable requirements and that a permit, if issued consistent with the Draft Permit, would protect human health and safety, the environment, and physical property.[59] The filing of the administrative record is a prima facie demonstration that the Draft Permit meets all state and federal legal and technical requirements and a final permit, if issued consistent with the Draft Permit, would protect human health and safety, the environment and physical property.[60] The Protestants may then rebut this presumption by presenting evidence on the referred issues that demonstrates the Draft Permit violates a specifically applicable state or federal legal or technical requirement.[61] The Protestants have rebutted the presumption that the current terms of the Draft Permit will be protective of the water quality of the South Fork San Gabriel River, and that these terms will cause or contribute to a violation of the TSWQS. They have rebutted the presumption that a total phosphorus limit of 0.15 mg/L is in line with the IPs, as it is not a reasonably achievable technology-based limit with consideration of the sensitivity of the site. And they have produced evidence that 0.05 mg/L is a reasonably achievably technology-based limit. The City may present additional evidence supporting the Draft Permit and overcoming the Protestants production of evidence.[62] It has not done so. The Applicant did not address reasonably achievable technology in its application and communications to TCEQ.[63] And during the hearing process, after being faced

[59] PFD at 10.
[60] 30 Tex. Admin. Code § 80.17(c)(1).
[61] 30 Tex. Admin. Code § 80.17(c)(2).
[62] 30 Tex. Admin. Code § 80.17(c)(3).
[63] Tr. Vol. 2, 474:17-476:23 (Laughlin).

with Dr. Ross's testimony and the CLEARAS report, it has not attempted to confront this evidence with substantive evidence of its own. Their only evidence is testimony by their own engineer that CLEARAS is expensive, *might* not meet ammonia nitrogen limits, and would require changes to the current wastewater plant.[64] They do not offer evidence demonstrating that CLEARAS is so expensive as to be inaccessible to the City, nor do they offer evidence that they cannot integrate CLEARAS into their own system.[65] And, beyond the CLEARAS issue, they do not offer any evidence as to why any of the other technologies in the EPA report relied upon by Dr. Ross could not be implemented to lower the concentration of phosphorus in the City's wastewater discharge.

The City now wants to claim that Dr. Ross's opinion is baseless, because she did not do the City engineer's job and review the various technologies that achieve low phosphorus concentrations and demonstrate how the City could integrate it into its current system.[66] Protestant Morris has provided evidence of a variety of technologies and plants that are capable of meeting the reasonably achievable technology-based limit recommended by the ALJs. The City failed to provide substantive evidence as to why 0.05 mg/L is not reasonably achievable for the City's plant (or why not a single technology in the reports discussed by Dr. Ross could be implemented). The ALJs correctly found that 0.05 mg/L is a reasonably achievable technology-based limit, based on the evidence in the record.

[64] Ex. APP-3 20:27-21:9; Tr. Vol. 2, 461:21-462:19 (Laughlin).

[65] The specific price for CLEARAS the City's engineer does mention, $28 million, appears to come from the CLEARAS report. *See* Ex. APP-3 20:8. *See also* SM-Ross-9 at 10. (And *see* Tr. Vol. 1, 263:7-13 for the City's attorney referencing the origin of the $28 million figure). However, this price is for an entire wastewater plant without any usable pre-existing infrastructure, which is not the case here. *Id.* The City also fails to mention the potential revenue streams that using the CLEARAS technology can generate with its byproduct. *Id.* at 10-11. In summary, the City offered no reliable proof concerning the actual cost of implementing CLEARAS at its plant. The ammonia nitrogen issue will be addressed below.

[66] It is also worth noting that the "waterway" into which the City discharges is irrelevant for the purposes of determining whether a technology is reasonably achievable or can be integrated into the wastewater system – that depends on the parameters of the influent and the components of the wastewater system.

2. <u>There Are No Legitimate Concerns That the Ammonia Nitrogen Limit Would Not Be Met.</u>

The City once again attempts to use ammonia nitrogen as a red herring. As addressed in Protestant Morris's closing arguments, there is no real concern that the ammonia nitrogen limit will not be met under the Draft Permit.[67] The City points to the fact that during the CLEARAS pilot, the ammonia nitrogen limit was not met.[68] This blatantly ignores that the purpose of the pilot was to reduce phosphorus as much as possible,[69] and that CLEARAS addresses this issue in the report, stating that the ammonia nitrogen limit can be achieved when the CLEARAS technology is implemented in full.[70] It also ignores the many other CLEARAS projects that have met the ammonia nitrogen limit in the City's permit (while still achieving a total phosphorus average at or below 0.05 mg/L),[71] and the fact that Dr. Ross firmly expressed the opinion that she has no concerns about CLEARAS not meeting the ammonia nitrogen limit.[72] And, perhaps most importantly, it ignores the fact that Clearas is not the only technology that can achieve such low levels of total phosphorus. Again, the relevant number (0.05 mg/L total phosphorus) is a reasonably achievable technology-based **limit**, not the technology itself.

C. Oligotrophic, Mesotrophic, and Eutrophic Are Appropriate and Useful Scientific Terms to Describe the Characteristics of a Body of Water.

The City, in its exceptions, fixates on the words "oligotrophic," "mesotrophic," and "eutrophic." The City's arguments here make little sense and reveal a fundamental misunderstanding of the purpose and use of these descriptors.

[67] Morris Closing at 23.
[68] City of Liberty Hill's Exceptions to the Proposal for Decision and Proposed Order (hereinafter "Applicant's Exceptions") at 4.
[69] Tr. Vol. 1, 269:2-9 (Ross).
[70] Ex. SM-Ross-9 at 9.
[71] Ex. SM-Ross-10.
[72] Tr. Vol. 1, 289:17-21 (Ross).

These are scientific terms that describe the characteristics of a particular body of water. Oligotrophic streams have high quality, clear water, high dissolved oxygen, and excellent aquatic animal habitat, while eutrophic streams are high in nutrients and algae and are generally murky and have lower dissolved oxygen.[73] Mesotrophic streams have water quality between the two.[74] Eutrophication is a related word – it is "the process by which a body of water becomes enriched in dissolved nutrients (such as phosphates) that stimulate the growth of aquatic plant life usually resulting in the depletion of dissolved oxygen" – i.e., as a stream becomes enriched by nutrient input and moves from one trophic state to another (e.g., goes from having oligotrophic characteristics to having mesotrophic or eutrophic characteristics), it is going through the process of eutrophication.[75]

The TCEQ does not have any rules that set oligotrophic/mesotrophic/eutrophic boundaries for streams. No party argues that the Commission has done this, or even that it should. However, the TSWQS, which include narrative standards that apply in this case, do exist, and must be followed. And these standards mandate that, for example, surface waters must be maintained in an aesthetically attractive condition,[76] and nutrients must not cause excessive aquatic vegetation to grow such that the receiving water's uses are impaired.[77] This is where words, like oligotrophic and eutrophic, which describe a certain set of stream characteristics, are useful. To determine whether aesthetics are being maintained or whether excessive algae has grown, the natural or background state of the River needs to be known and described, as does the state of the River after the discharge has impacted it.

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[73] Ex. SM-Ross 12:8-16.
[74] *Id.*
[75] Definition from Merriam-Webster at https://www.merriam-webster.com/dictionary/eutrophication. *See also* Tr. Vol. 1, 250:11-14 and 281:13-20 (Ross).
[76] 30 Tex. Admin. Code § 307.4(b)(4).
[77] 30 Tex. Admin. Code § 307.4(e).

The South Fork San Gabriel River, upstream of the discharge point and unaffected by the effluent, has characteristics that fit the scientific conception of a water body that is oligotrophic: it has high dissolved oxygen, low nutrient concentrations, clear water, and limited aquatic vegetation. Both Dr. Ross and the City's own expert, Mr. Machin, have used this word to describe the River upstream of the outfall.[78] At and downstream of the City's discharge point, the River is mesotrophic or eutrophic: abundant algae, lower dissolved oxygen, and murkier water.[79] It is not the fact that the River downstream of the outfall is mesotrophic or eutrophic that necessarily violates the surface water quality standards. Instead, it is the fact that the City's discharge negatively impacts and will continue to degrade the River's natural water quality, ruin the aesthetics of the River, and impair its uses that causes this violation. The TCEQ does not need to adopt the words "oligotrophic" or "eutrophic" in a rulemaking for what the City is doing to the River, i.e., causing widespread eutrophication, to be a violation of state and federal law. It is also worth noting that the TCEQ does recognize eutrophication as an issue in its IPs – the nutrient screening for setting a total phosphorus limit in discharge permits involves assessing the potential for eutrophication in the receiving body of water.[80]

Perhaps the City's paranoia concerning these terms stems from the EPA report referenced by Dr. Ross: Ambient Water Quality Criteria Recommendations; Rivers and Streams in Nutrient Ecoregion IV.[81] This report considered streams from the same subecoregion as the South Fork San Gabriel River and analyzed their characteristics. In reviewing this data, such as instream nutrient concentrations, the EPA suggested potential nutrient "boundaries" for these streams – for example,

[78] Tr. Vol.1, 279:3-8 (Ross); Tr. Vol. 2, 511:4-8 (Machin).
[79] Tr. Vol. 1, 279:9-17 (Ross); Tr. Vol. 1, 280:7-281:4 (Ross); Ex. SM-King-5 at 3 (figure 4) and at 6 (figure 8) (showing drop in dissolved oxygen); Bunnell Protestants Ex. 2-1 and 2-2 (showing clear water upstream and murky water downstream); Ex. SM-Morris-2 at 33-49 (photos 40-67) (photos comparing upstream and downstream of the outfall).
[80] *See e.g.*, Ex. ED-JL-3 (IPs) at 27, 47, 49, and 51.
[81] Ex. SM-Ross-4.

that 0.025 mg/L total phosphorus is approximately the threshold between an oligotrophic stream and a mesotrophic stream.[82] These suggested boundaries are meant to help inform states as they adopt nutrient criteria to protect the designated uses of their waters and address nutrient over-enrichment issues.[83] However, Dr. Ross is not suggesting that the TCEQ has adopted or should adopt these boundaries – this report is simply another piece of evidence supporting her testimony that the River is naturally low in phosphorus;[84] that when streams like the South Fork San Gabriel contain approximately 0.02 mg/L total phosphorus or more they begin to go through biological changes such as algal blooms;[85] and that a total phosphorus limit of 0.15 mg/L in the Draft Permit will not be protective of water quality in the River because it will cause eutrophication (the very thing that total phosphorus limits are meant to protect against).[86]

The City also asserts that a Conclusion of Law in the Kendall West TCEQ Order stands for the proposition that "the oligotrophic/mesotrophic/eutrophic criteria have no role in informing the TCEQ's application of the TSWQS."[87] Again, Protestant Morris does not claim that the boundaries suggested in the EPA report are or should be incorporated into TCEQ's rules. However, the City's exceptions blatantly misrepresent the Conclusion of Law from the Kendall West Order, which simply says that the water quality standards do not contain specific criteria related to phosphorus or nitrogen, nor are there any criteria that use the terms oligotrophic/mesotrophic/eutrophic. Such a conclusion of law does not prohibit a party, experts, or the TCEQ from using scientifically relevant terms like "oligotrophic" to describe the state of a waterbody or the impact a particular

[82] *Id.* at 22 (exhibit p. 35).
[83] *Id.* at iii-iv (exhibit p. 4-5).
[84] Tr. Vol.1, 286:19-23 (Ross).
[85] Ex. SM-Ross 27:1-19; Tr. Vol. 1, 286:24-288:2 (Ross).
[86] Ex. SM-Ross 28:1-5 and 28:20-22; Tr. Vol. 1, 292:1-8 (Ross).
[87] Applicant's Exceptions at 6.

discharge has on that waterbody. Nor does it make pieces of evidence, like Dr. Ross's testimony concerning the EPA report, inadmissible or irrelevant.

As Protestant Morris has already addressed in her closing arguments, the City's insistence that an ALJ can only consider agency rules and policies during a hearing is legally unsound.[88] Yes, state law and TCEQ rules determine the outcome of the proceeding, but to interpret laws such as the TSWQS and apply them to the facts in a particular permitting case, expert opinions and scientific evidence are admissible to inform the ALJs' rulings.

Ultimately, the use or non-use of the words "oligotrophic," "mesotrophic," and "eutrophic" do not matter here. If there is some particular issue with these words, the City's current degradation of the River (which would continue under the terms of the Draft Permit) can be summarized as a layperson might describe it: there is not a lot of algae in the River upstream of the outfall, the water is nice and clear and used by wildlife, and people use it for swimming and fishing; but for miles downstream of the outfall the River is full of algae and stinky muck, there is not as much wildlife, and people do not use it for swimming and fishing. The problem remains the same: the Draft Permit will not be protective of the water quality of the South Fork San Gabriel River. And, for example, Finding of Fact 90 could easily replace the words "oligotrophic conditions" with "background conditions" and retain the same meaning, though there is no legal need to do so. Nonetheless, oligotrophic is an appropriate scientific term to use there, as is eutrophic in Finding of Fact 80.

D. A Separate Nutrient Study Is an Appropriate Term for the Draft Permit.

As already addressed above, a separate nutrient study is an appropriate term to be added to the Draft Permit. While the study the City has recently completed is a useful preamble to a future nutrient study, the nutrient input and response monitoring study in the Draft Permit must be an

[88] *See* Morris Response to Closing at 3, 7-8.

ongoing requirement, such that, as the phosphorus discharge into the River is lowered, the effect on the stream can be measured. The River has been badly degraded by the City's effluent and previous antidegradation reviews have been shown to be inadequate. As the Applicant and the TCEQ work to remedy this, the data gathered from such a study will be vital to inform their efforts. A study that only examined the effluent and the River during part of 2022 cannot take the place of years' worth of data as the City improves its discharge.

Protestant Morris asks that this nutrient study be a permanent and ongoing requirement in the permit, or at least required until such a time as it is determined that the discharge from the City's wastewater plant is no longer causing a violation of the TSWQS.[89]

E. The Report Attached as Exhibit B Should Not Be Considered.

Protestant Morris objects to Exhibit B, attached to the City's Exceptions to the Proposal for Decision. The deadline for the Applicant to file evidence was June 24, 2022, and the record for the hearing closed on August 23, 2022.[90] The City cannot now attempt to file more evidence for consideration.

This report was never produced for the other parties; there was no opportunity to object to this report; nor was it ever examined or considered by the ALJs. The City has not moved for or been granted permission to submit additional evidence. Per the City's own words, the report "[was] not subject to examination by the parties or tribunal."[91] And, perhaps most inappropriately of all, this report contains information which was objected to for failure to disclose this information to the protesting parties and for which the objection was granted by the ALJs.

[89] Or, if the study must have a time limitation, that it last through any compliance period and two years beyond the City's achieving 0.05 mg/L total phosphorus in its discharge.
[90] *See* Order No. 3 – Setting Procedural Schedule; Setting Prehearing Conference and Hearing on the Merits; and General Procedural Requirements, SOAH Docket No. 582-22-1222. *See also* PFD at 5.
[91] Applicant Exceptions at 2.

Moreover, this report is not relevant or related to this proceeding. The City, due to repeated noncompliance with its permit, entered into an agreed order with TCEQ, which required the City to conduct this nutrient sampling study. This study was not performed for this contested case hearing, and the City would have been required to perform this study whether it was seeking a permit renewal or not. Not only is it irrelevant, but the only apparent need the City gave for attaching it was to prove that the study had been done. This could have easily been achieved by referring to the administrative order requiring such a study, instead of using it as a flimsy excuse to try to submit a 60-page report almost three months after the close of the record.

Exhibit B should not be considered by the Commission.

F. The ALJs Correctly Concluded that the City's Discharge Is Causing Extensive Algae Growth in the River.

In its exceptions, the City includes a section quibbling over the effects of the City's discharge on the River. In response, Protestant Morris would like to clarify the following points.

The City does not appear to dispute that the terms of the Draft Permit will not be protective of the surface water quality and uses of the River. However, the City does insist that the Draft Permit will afford greater protections to the South Fork San Gabriel River than the current permit.[92] As discussed already in this Reply, this is not the relevant standard: the question is whether the terms of the permit will cause or contribute to the violation of applicable water quality standards. The ALJs found that it will and thus recommended that the Draft Permit be modified before issuance.

Additionally, the City nitpicks over how much of the algae in the River is caused by the plant's discharge, insisting that the algae clears up approximately two miles (at the Ronald Reagan

[92] *Id.* at 7.

Bridge) downstream from the outfall and algae below that point cannot be attributed to the City.[93] First, this is legally irrelevant: the Draft Permit cannot *cause or contribute to* the violation of water quality standards in the stream. If the discharge will only cause a violation of the TSWQS in the stream for one or two miles – that is still in violation of the law. It does not need to cause every filament of algae between the discharge point and the end of the river segment.

Second, the City's writing suggests that Mr. Buzan's testimony is the only relevant testimony in the record related to algae growth in the stream. Other than Protestants' lay testimony, which the City brushes aside and which includes Protestant Morris's very descriptive retelling of her walk in the River to Ronald Reagan bridge where she did, in fact, see extensive algae in July 2022,[94] Dr. King also spoke to the prolific algae present in the stream at Ronald Reagan Bridge during his visit in April 2022.[95] And beyond this, even if there is a break in algae at a certain point in the River, with the algae continuing further downstream, the City's effluent may well still contribute to the growth of such algae, as it floods the River with nitrogen, allowing for any additional input of phosphorus to immediately spark the growth of algae.[96]

Concerning the extent of the algae, its cause, and the fact that this algae will continue to grow similarly under the Draft Permit, the Protestants also provided a mountain of evidence, including lay testimony about the current state of the River and expert testimony as to how this state would change (or not) under the Draft Permit.[97] Drs. King and Ross both testified that the City's discharge is the cause of the algae in the River[98] and that even without other contributing

[93] *Id.* at 8.
[94] Tr. Vol. 1, 42:23-46:17 (Morris).
[95] Ex. SM-King 21:10-13; Tr. Vol. 1, 213:9-20 (King); *see* Ex. SM-King-4 at 12 (photo 19) for a photo of algae present at Ronald Reagan Blvd taken by Dr. King on April 4, 2022 and at 6 (photo 8) for a picture of algae at the River taken by Dr. King on September 7, 2020.
[96] *See* Ex. SM-King 31:7-11. The discharge in the River will also raise the background levels of phosphorus in the stream so the input necessary from other sources to cause algal blooms will be lower.
[97] *See* Morris Closing at 13-19 for a discussion of this evidence.
[98] Ex. SM-Ross 17:5-9; Tr. Vol. 1, 240:7-23 (Ross); Ex. SM-King 23:3-10; Tr. Vol. 1, 209:23-210:3 (King).

sources, there would still be excessive algae in the River, both under the terms of the current permit and the Draft Permit.[99] The City's own biology expert, Mr. Buzan, agreed that the discharge is the predominant contributor of nutrients to the stream,[100] while the City's engineering expert, Mr. Machin, said the algae in the river is most likely the result of the wastewater outfall.[101]

Finally, the City wishes to insist that the Draft Permit is more protective of the River, but this is simply untrue. As discussed above, the current limit for phosphorus loading is five pounds per day (at 1.2 MGD and a total phosphorus concentration limit of 0.5 mg/L). While the limit for the total phosphorus concentration in the permit will be reduced to 0.15 mg/L, this only reduces phosphorus loading in the interim phase of 2.0 MGD (to 2.5 pounds per day). At the final phase of 4.0 MGD, phosphorus loading will return to five pounds a day, and these five pounds of phosphorus can be carried even farther downstream with the increase in discharge volume. As noted above, the most important impact on the River comes from the total load of phosphorus, not just the concentration.[102] And this does not even address the buildup of nutrients in the river as algae grows and dies off.[103]

The evidence in the record supports the ALJs' findings that the City's discharge under the Draft Permit will lead to a similar level of degradation of miles of the South Fork San Gabriel River as is occurring now.

[99] Tr. Vol. 1, 146:7-20 and 292:1-8 (Ross); Tr. Vol. 1, 210:11-212:1 (King).
[100] Ex. APP-12 14:10-12; Tr. Vol. 2, 384:21-385:4.
[101] Tr. Vol. 2, 529:11-15 (Machin).
[102] Ex. SM-King 48:19-20.
[103] The City is correct in pointing out that the algae would, of course, not disappear just due to four months of reduced levels of total phosphorus in the City's discharge. Applicant Exceptions at 7-8. However, the fact that after months of lower phosphorus discharge and weeks of cleaning by City contractors, the algae not only grew back quickly, but did so most rapidly closer to the outfall and the fresh effluent (in addition to the algae growing on the rocks that are outside of the River) is still indicative that the effluent itself is causing algae growth.

G. If the City Is Granted a Compliance Period, the Draft Permit Must Contain Provisions to Protect the River.

1. The City Is Already Out of Compliance with its Permit.

The City's request for a compliance period suggests that, if not for the lowering of the total phosphorus limit to 0.05 mg/L, the City would be in compliance with its permit once the Draft Permit is issued. This is simply untrue. The City is violating the TSWQS, and, thus, its permit, every single day. The effluent from the wastewater treatment plant is causing the widespread degradation of the South Fork San Gabriel River at and below the City's discharge point. The River is choked with algae and muck, it is aesthetically unattractive, and its uses are impaired. And this will continue under the renewed permit if the City is given a period in which to come into compliance with the 0.05 mg/L total phosphorus limit. Compliance period or no, the City will still be out of compliance if the permit is renewed.[104]

[104] Both photos can be found at SM-Morris-2 at 12 (photo 13) and 48 (photo 64).

Taken upstream of outfall, May 26, 2022 (2:32pm), by Stephanie Ryder Morris.

Taken at Morris property, June 3, 2022 (5:17pm), by Stephanie Ryder Morris.

2. The River Must Be Protected Under the Draft Permit.

However, Protestant Morris does recognize that coming into compliance with a total phosphorus limit of 0.05 mg/L immediately may be challenging. If the City is given a compliance period under the new permit, it is vital that terms are added to the Draft Permit to help protect the River in the interim (and the interim phosphorus limit should be no higher than 0.15 mg/L).[105] Per the City's own assertions and some of its discharge reports, it appears that with the City's pre-existing wastewater technology, the current plant may be able to treat the effluent to a level close to 0.05 mg/L.[106] The City should be required to utilize the technology it already has to treat the wastewater to the best of its ability – whether this is through a ratcheting down of the total phosphorus limit over time, or an interim phosphorus limit between 0.05 mg/L and 0.15 mg/L as the City works towards compliance with 0.05 mg/L.

In the interest of protecting the stream during this compliance period, other requirements would also be appropriate. For example, if the new limit on the average concentration of total phosphorus could not be enforced immediately, a temporary limit on the mass of phosphorus discharged into the River each day could be added to the permit for the length of the compliance period. Once this limit is met, the City must find an alternate means of disposing of the rest of its wastewater that day (whether through re-use or through removal offsite via pump truck). I.e., if the City is discharging an average of 1.5 MGD, then it can only discharge a weight of 0.625 pounds of total phosphorus into the River (the equivalent of a concentration of 0.05 mg/L), before using an alternate means of disposal to ensure compliance, such as pump and haul, which the

[105] Even if there is no compliance period allowed, if the City cannot come into compliance with the 0.05 mg/L total phosphorus permit limit immediately, additional terms similar to the ones listed below should be added to the permit to protect the River.
[106] *See* Ex. SM-21 at 1-4; Ex. APP-3 15:12-20; City of Liberty Hill's Reply Brief at 12.

Commission relies on regularly in permits calling for a back-up method of disposal or as a temporary stopgap.[107] Other potential terms could include the City regularly continuing to clean the River of algae at and downstream of the outfall to offset discharged phosphorus.

IV. CONCLUSION

Protestant Morris objects to Applicant's Exceptions as untimely, as well as to Exhibit B attached to Applicant's Exceptions. She opposes all exceptions put forth by the ED and the Applicant.

Protestant Morris respectfully re-urges her exceptions to the Proposal for Decision and Proposed Order, and asks that the Commission reform the Findings of Fact and Conclusions of Law in accordance with her exceptions. She herein incorporates those exceptions and would re-urge the same relief requested therein. She also asks that if a compliance period is incorporated into the permit, or the Applicant is otherwise incapable of meeting the new total phosphorus limit upon issuance of the permit, that additional terms protecting the River be included.

Respectfully submitted,

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[107] The Commission regularly relies on pump-and-haul provisions in TLAPs. *See, e.g.*, Permit No. WQ0014488001 at 35 (issued Mar. 8, 2021). *See also* TPDES Permit No. WQ0015713001 at 35 (issued Feb. 4, 2021) (requiring permittee to pump-and-haul effluent generated if requisite storage under permit becomes full).

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document has been served on all persons listed below, in compliance with the Texas Rules of Civil Procedure, on November 28, 2022.

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