

CAUSE NO. _____

GREATER EDWARDS AQUIFER ALLIANCE § IN THE DISTRICT COURT OF
§
§
Plaintiff, §
§
v. § TRAVIS COUNTY, TEXAS
§
§
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, §
§
§
Defendant. § _____ JUDICIAL DISTRICT
§
§

PLAINTIFF'S ORIGINAL PETITION

TO THE HONORABLE JUDGE OF SAID COURT:

COMES NOW, Greater Edwards Aquifer Alliance (“GEAA” or “Plaintiff”) and files this its Original Petition seeking judicial review of decisions by the Texas Commission on Environmental Quality (“TCEQ,” “the Commission,” or “Defendant”), which resulted in the approval of the Application submitted by Municipal Operations, LLC (“Municipal Operations” or “Defendant”) for New TPDES Permit No. WQ0016171001 (the “Application”). Plaintiff maintains the Commission’s decision to approve Municipal Operations’ Application is the product of numerous errors and must be reversed. For support, Plaintiff respectfully offers the following:

I. DISCOVERY

1. This case is an appeal of an administrative agency's decision. To the extent discovery is warranted in this matter, discovery should be conducted under Level 3, in accordance with Texas Rule of Civil Procedure 190.4.
2. Plaintiff affirmatively pleads that this action is not governed by the expedited actions process in Texas Rule of Civil Procedure 169, because Plaintiff seeks non-monetary relief. Tex. R. Civ. P. 47(c) & 169.

II. NATURE OF THE CASE

3. This is an administrative appeal from a decision of the Texas Commission on Environmental Quality, approving an application by Municipal Operations, LLC for a new Texas Pollutant Discharge Elimination System (“TPDES”) permit: TPDES Permit No. WQ0016171001 (the “Permit”).
4. The Permit authorizes the discharge of up to 1,000,000 gallons per day of treated domestic wastewater from a wastewater treatment facility that will be located in Bexar County, Texas.
5. Plaintiff is a nonprofit organization that contested Municipal Operations’ Application for the Permit.
6. Following a hearing convened by the State Office of Administrative Hearings (“SOAH”), the Administrative Law Judges (“ALJs”) issued a Proposal for Decision (“PFD”) on May 19, 2025, recommending the approval of Municipal Operations’ Application.

7. The Commission considered the PFD in an open meeting on October 22, 2025, and thereafter, on October 28, 2025, issued an Order Granting the Application by Municipal Operations, LLC for New TPDES Permit No. WQ0016171001. The Order is attached to this Petition as **Exhibit A**.
8. Plaintiff timely filed a Motion for Rehearing on November 24, 2025. The Motion was overruled by operation of law, after the Commission failed to take action on the Motion within the time prescribed by TCEQ's rules. *See* 30 Tex. Admin. Code § 80.272(e).
9. This Original Petition for judicial review of the Commission's decision timely follows.
10. By this Original Petition, Plaintiff seeks an order reversing the Commission's October 28, 2025 decision, which approved Municipal Operations' Application for the Permit.

III. PARTIES

11. **Plaintiff Greater Edwards Aquifer Alliance.** Greater Edwards Aquifer Alliance (“GEAA”) is a nonprofit membership organization whose purposes include seeking to protect and preserve the Edwards Aquifer and Trinity aquifers, their springs, watersheds, and the Texas Hill Country that sustains these aquifers. In forwarding this purpose, GEAA seeks to ensure protection of the water quality in Hill Country streams.
12. GEAA's membership includes Kerry McEntire, who has recreacted in and around Helotes Creek for almost 40 years – that being since he was a child. He learned to

swim and fish in Helotes Creek and has taught his own children those same skills in Helotes Creek. Mr. McEntire chose to become an environmental scientist because of his experience growing up in Grey Forest, Texas.

13. GEAA is aggrieved by the Commission's final decision to issue the wastewater permit at issue in this matter (Texas Pollutant Discharge Elimination System Permit No. WQ001617001) (the "Permit"). The Commission's final decision authorizes the discharge of contaminants into Helotes Creek in quantities that will potentially jeopardize the ability of Mr. McEntire, and other GEAA members, to continue to fish and swim in Helotes Creek downstream of the discharge authorized by the Commission's final decision to issue the Permit.
14. **Defendant Texas Commission on Environmental Quality.** The Texas Commission on Environmental Quality is the state agency responsible for regulating water pollution; it operates the Texas Pollutant Discharge Elimination System program pursuant to which the Application at issue in this suit occurred. Defendant TCEQ can be served with citation by serving its Executive Director ("ED"), Ms. Kelly Keel, at 12100 Park 35 Circle, Building F, Austin, Texas 78753.

IV. JURISDICTION AND VENUE

15. This Court has jurisdiction over Defendant TCEQ as an agency of the government of the State of Texas.
16. This Court has jurisdiction over the controversy because this action is brought under Texas Government Code Section 2001.171 and Texas Water Code Section 5.351.

17. Plaintiff timely filed a Motion for Rehearing of the Commission's decision on November 24, 2025. This Original Petition is timely filed within 30 days after the date on which the Motion was overruled by operation of law in accordance with the TCEQ's rules. All other conditions precedent have been performed or have occurred.
18. Venue properly exists in Travis County, Texas, under Texas Government Code Section 2001.176 and Texas Water Code Section 5.354.

V. TRANSMITTAL OF RECORD

19. Demand is hereby made that TCEQ transmit a certified copy of the entire record of its proceedings to this Court within the time permitted by law for filing an answer in this case.

VI. FACTUAL AND PROCEDURAL BACKGROUND

20. Helotes Creek flows through Northwest Bexar County for several miles, and is a perennial stream for most of this distance. In the area where Helotes Creek flows through the City of Grey Forest, a variety of wildlife enjoy the clean, clear waters of Helotes Creek, ranging from spotted bass, to crayfish, to sun perch, to multiple species of turtles, along with frogs.



Red Eared Baby Slider Turtle near Helotes Creek



Crayfish caught in Helotes Creek



Spiny Softshell Turtle near Helotes Creek



Rio Grande Leopard Frog near Helotes Creek

21. Due to the abundant and varied wildlife in Helotes Creek, GEAA members like Kerry McEntire enjoy fishing and swimming in Helotes Creek in the area of the Creek near the City of Grey Forest.



GEAA Member Kerry McEntire, with Spotted Bass caught in Helotes Creek

22. On May 23, 2022, Municipal Operations submitted a permit application to TCEQ for a new TPDES permit for a wastewater treatment facility to be located in Bexar County, Texas (the “Application”).
23. By its Application, Municipal Operations requested authorization for the discharge of treated domestic wastewater at a volume of 1,000,000 gallons per day through a pipe into what was identified by the ED for purposes of this Application as Helotes Creek, then 0.15 miles to an approximately 0.5 acre pond, then a 1.5 mile stretch of what was characterized as Helotes Creek for purposes of the Application,

thence to the over three miles of Helotes Creek (which stretch included the portion flowing through Grey Forest), then into Culebra Creek, and, ultimately Lower Leon Creek.

24. On August 30, 2022, the ED declared the Application administratively complete.
25. In evaluating Municipal Operation’s Application, the ED classified Helotes Creek as having minimal aquatic life use in what was identified as Helotes Creek upstream of the more than three mile stretch of Helotes Creek in the area flowing through Grey Forest, and limited aquatic life uses downstream from that point throughout the City of Grey Forest to the confluence of Helotes Creek with Lower Leon Creek/Segment 1906.
26. According to TCEQ’s Procedures to Implement the Texas Surface Water Quality Standards (the “IPs”), the designation of a water body as “limited” is intended to describe a water body characterized by uniform habitat characteristics, with most regionally expected species absent, a low diversity of species, and a low species richness. The Commission itself ultimately adopted this classification as the Commission’s own.
27. In evaluating the Application, the ED did not apply TCEQ’s “Tier 2” anti-degradation rule to any part of Helotes Creek. TCEQ’s Tier 2 anti-degradation rule applies to any a water body that is “fishable/swimmable.” Since the ED had determined that the entirety of Helotes Creek was not “fishable” (including the portions pictured above, wherein Mr. McEntire has regularly fished for 40 years), the ED determined that there was no need to apply the Tier 2 anti-degradation rule

to this water body. The Commission ultimately adopted this same conclusion when issuing the Permit.

28. In evaluating the Application, the Executive Director determined that the discharge would result in a lowering of dissolved oxygen (“DO”) concentrations in an initial pond downstream of the discharge to a concentration of 2.9 mg/L. This was determined to meet the requirement of the Texas Surface Water Quality Standard (“TSWQS”) that DO be maintained at a level of at least 3.0 mg/L based upon a determination that TCEQ practice is to allow a deviation from the applicable TSWQS of 0.2 mg/L DO. This approach was adopted by the Commission in the Commission’s Final Order.
29. On November 16, 2022, the ED determined that the Application was technically complete and thereafter prepared a draft permit.
30. A public meeting was held on May 9, 2023, at the conclusion of which the public comment period closed. Plaintiff, and many of Plaintiff’s members, submitted comments on the Application on the same day.
31. The ED issued its Response to Public Comment and set the deadline for requests for a contested case hearing on February 12, 2024. Plaintiff submitted a request for a contested case hearing on the same day.
32. At an open meeting on August 14, 2024, the Commission considered hearing requests on the Application. The Commission determined that GEAA’s hearing request should be granted and referred seven disputed issues of fact to the State Office of Administrative Hearings.

33. At the SOAH preliminary hearing on November 21, 2024, Plaintiff, along with other protesting parties, was admitted as a party to the SOAH proceeding.
34. An evidentiary hearing on the merits of Municipal Operations' Application was held via videoconference on February 18 – 20, 2025.
35. After the close of the contested case evidentiary hearing, the parties submitted written closing arguments and reply briefs.
36. On May 19, 2025, the ALJs issued a Proposal for Decision ("PFD"), recommending that the Application be granted.
37. The parties submitted exceptions to the PFD, identifying various issues with which they disagreed with the ALJs' analysis, and reply briefs.
38. The Commission then considered the PFD in an open meeting on October 22, 2025, and voted to approve Municipal Operations' Application.
39. The Commission's decision was memorialized in the Order issuing the Permit, which was signed on October 28, 2025, and included findings of fact and conclusions of law.
40. Plaintiff timely filed its Motion for Rehearing, which was overruled by operation of law. That Motion for Rehearing is attached as **Exhibit B** to this Petition and is incorporated herein for all purposes.
41. By the timely filing of this Petition, Plaintiff now seeks judicial review of the Commission's decision.

VII. ERRORS OF DEFENDANT TCEQ

42. This is an administrative appeal seeking judicial review under the Administrative Procedure Act (“APA”), Tex. Gov’t Code §§ 2001.001-.902, of a decision by an administrative agency—namely, the TCEQ.
43. Accordingly, an agency commits reversible error when its findings, inferences, conclusions, and decisions are:
 - (A) in violation of a constitutional or statutory provision;
 - (B) in excess of the agency’s statutory authority;
 - (C) made through unlawful procedure;
 - (D) affected by other error of law;
 - (E) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; or
 - (F) arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion.Tex. Gov’t Code § 2001.174(2).
44. An agency’s findings and decision must be reasonably supported by substantial evidence. Tex. Gov’t Code § 2001.174(2)(E). An agency’s action can be supported by substantial evidence but nevertheless be arbitrary and capricious if the agency makes a decision without regard for the facts, relies on fact findings not supported by any evidence, or when a rational connection between the facts and decision is missing. Tex. Gov’t Code § 2001.174(2)(F); *Heritage on San Gabriel Homeowners Ass’n v. Tex. Comm’n on Env’tl. Quality*, 393 S.W.3d 417, 423-24 (Tex. App.—Austin 2012, pet. denied). In short, an agency commits reversible

error when it has not genuinely engaged in reasoned decision making. *Heritage*, 393 S.W.3d at 424.

45. Plaintiff alleges that the Commission committed several errors in its October 28, 2025 Order. Those errors are detailed below. Plaintiff incorporates by reference all allegations and arguments contained in its Motion for Rehearing, attached to this Petition as Exhibit B, and in this action, Plaintiff challenges all findings of fact and conclusions of law from the Order identified in the Motion.
46. Plaintiff's substantial rights have been prejudiced by the Commission's errors identified and discussed below.
 - A. Error No. 1. TCEQ erred in concluding that discharge causing a dissolved oxygen concentration of 2.9 mg/L was acceptable.**
47. TCEQ Rules provide that a TPDES permit must contain controls which ensure that the pollutants discharged will not be discharged at a level which has the reasonable potential to cause or contribute to a violation of the TSWQS. 30 Tex. Admin. Code § 305.531(4), incorporating by reference 40 C.F.R. § 122.44, including 40 C.F.R. § 122.44(d)(1)(i).
48. The TSWQS provide that a water body with limited aquatic life use, as was the aquatic life use level applied by the Commission to the initial pond downstream of the discharge, must maintain a minimum DO level of 3.0 mg/L. 30 Tex. Admin. Code §§ 307.4(h)(1), 307.7(b)(3)(A)(i).
49. Modeling performed by the ED to determine the impact of the discharge upon DO concentrations within the initial pond downstream of the discharge predicted that

DO levels within that pond would be lowered to 2.9 mg/L. The ED staff made conclusory assertions that this variance was acceptable due to the “conservative” nature of the model used, in that the “worst case” conditions modeled would be unlikely to actually exist.

50. Due to the characteristics of the downstream waters, it is likely that the “worst case” conditions reflected in the model will, in fact, often exist.
51. The modeled prediction of a DO level in the initial downstream pond of 2.9 mg/L demonstrated that a reasonable potential exists for the pollutants to be discharged to cause or contribute to a violation of the 3.0 mg/L minimum DO required by the TSWQS in this water body.
52. Due to the Commission’s issuance of the Permit, when its own modeling predicted a DO concentration of 2.9 mg/L in the initial pond, when the TSWQS require that the DO within this pond be maintained at a level of 3.0 mg/l, TCEQ’s Findings of Fact Nos. 42 and 43, as well as Conclusions of Law Nos. 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

B. Error No. 2. The Commission erred in acting upon unreliable DO modeling results.

53. The IPs direct TCEQ to use site-specific hydraulic information “if it is available and of acceptable quality.”
54. Upon judicial review of TCEQ decisions relating to water quality permitting, conformance with the IPs is an important consideration. *Save Our Springs All., Inc. v. Tex. Comm’n on Env’tl. Quality*, 713 S.W.3d 308, 321 (Tex. 2025) (“[T]he main issue turns on the proper construction and application of the antidegradation standards in 30 Texas Administrative Code section 307.5 and corresponding *implementation procedures.*” (emphasis added)). The explicit language of the rules and IPs is important, as a court will only defer to an agency’s interpretation of its rule if the rule is ambiguous. *Wal-Mart Stores, Inc. v. Xerox State & Local Sols., Inc.*, 663 S.W.3d 569, 581 (Tex. 2023).
55. The IPs do not instruct TCEQ to omit site-specific information from its consideration of DO simply because that site-specific information is not provided with the application or because not enough site-specific information is readily available to calibrate every parameter in the model. In fact, the evidentiary record shows that the TCEQ’s General Guidance document for the modeling review actually instructs the modeler to look for pertinent information, which could include “site specific hydraulic data, or additional maps that portray the area, or comments on inspection reports that may describe the receiving waters, etc.”

56. TCEQ has not only failed to consider site-specific information, the agency has actually *refused* to consider site-specific information that was available for the reason that they would need “all the information.” But there is no support in the IPs and EPA-approved documents for this approach.
57. Ultimately, witnesses for both Municipal Operations and the ED acknowledged that the uncalibrated QUAL-TX model does not accurately predict the concentration of DO that will be maintained in Helotes Creek. Still, neither the witness for Municipal Operations nor the ED attempted to verify whether the QUAL-TX modeling results were nevertheless reliable in order to predict that the concentration of DO would not fall below the requisite DO criteria.
58. Thus, the evidence establishes that there is a reasonable potential that the discharge will result in a violation of the water quality standards, namely the numeric DO criteria. There is no evidence in the record to support the affirmative determination that Municipal Operations ensured that the DO criteria would be met.
59. Relatedly, the Commission’s Final Order does not include any findings of fact to support a conclusion that the DO criteria in Helotes Creek will be met. Finding of Fact 39 is made up of two findings. First, FOF 39 finds that, in the absence of adequate site-specific width, depth, flow, and velocity data for the receiving water body, the ED uses standardized hydraulic coefficient assumptions downstream. This may be so, but this finding alone does not support a conclusion that the DO criteria in Helotes Creek will be met.

60. Second, FOF 39 finds that these “assumptions have been shown to be representative of Texas streams and have been approved by TCEQ and the EPA.” The IPs, which are approved by TCEQ and EPA, do not support this finding. The IPs plainly state that the “equations using data collected during studies performed throughout the state, and the coefficients represent the *median values* from those data.” While some default rates may be “representative,” the stream hydraulic information is explicitly developed using *median* values. By definition, there will be streams in Texas with hydraulic characteristics having values on both sides of the median value.
61. Therefore, TCEQ’s analysis cannot end there. But that is where it ends in the Commission’s Final Order.
62. In order to support the conclusion of law (COL 11) that the proposed discharge will achieve the minimum DO concentrations in compliance with the TSWQS in Chapter 307, the Commission would have needed to go further.
63. The Commission must find that the actual hydraulic characteristics relied upon were representative of Helotes Creek (the evidence shows they were not) or that the results of using the default hydraulic characteristics were verified, nevertheless. A matter is not true merely because an expert says it is so. *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 726 (Tex. 1998). Rather, where the analytical gap between the data and the opinion offered is simply too great, then an expert opinion is not reliable. *Id.* Bare, baseless opinions will not support a judgment even if there is no objection to their admission in evidence. *City of San*

Antonio v. Pollock, 284 S.W.3d 809, 816 (Tex. 2009). Even when a basis is offered for an opinion, if that basis does not, on its face, support the opinion, the opinion is still conclusory. *Id.*

64. All parties agree that the default hydraulic characteristics were not representative of Helotes Creek. They represented statewide medians, rather than accurate characterizations of Helotes Creek.
65. The Final Order asserts that “these assumptions have been shown to be representative of Texas streams and have been approved by TCEQ and EPA.”
66. But, there is no data showing that these assumptions are representative of *Helotes Creek* – the necessary showing in this case for the modeling results to be probative. Under these circumstances, it was incumbent on Municipal Operations to take the second step of verifying that the QUAL-TX modeling results were in fact reliable to provide accurate results for *Helotes Creek*.
67. Because Municipal Operations did not perform this second step, there is no conclusion or factual finding that indicates how Municipal Operations’ evidence demonstrated compliance with the requirement to ensure DO criteria will be met. The analytical gap between this statewide data and the highly-specific conclusions as to the DO in Helotes Creek (*to the nearest tenth of a mg/L*) is so great that the opinions offered regarding the exact DO to be anticipated in Helotes Creek are simply conclusory, and cannot support a factual finding that the DO standards have been met. Of course, an agency cannot justify reliance upon conclusory opinions merely by adopting a standard practice of relying on conclusory opinions.

68. In sum, Municipal Operations had the burden of proof. The Commission's failure to require Municipal Operations to meet its burden with regard to DO is arbitrary and capricious, an abuse of discretion, in violation of a statutory provision, in excess of its statutory authority, and violated the due process rights of the Aligned Protestants, including Plaintiff GEAA.

69. Due to the Commission's refusal to consider site-specific discharge route information (contrary to the Commission's IPs), and reliance on conclusory expert opinions to find and conclude that the DO criteria had been met, FOF 39, 40, 41, 42 and 43, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

C. Error No. 3. TCEQ erred in failing to apply the Tier 2 anti-degradation review rule to Helotes Creek, based upon TCEQ's failure to recognize the fishable/swimmable uses of Helotes Creek.

70. The anti-degradation policy and implementation procedures set forth by TCEQ rules "apply to actions regulated under state and federal authority that would increase pollution of the water in the state." 30 Tex. Admin. Code § 307(a).
71. Thus, these TCEQ rules apply to this permit application.
72. Tier 2 of the anti-degradation review provides that "[n]o 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 water quality is necessary for important economic or social development.”

73. Municipal Operations’ proposed discharge would flow into Helotes Creek and then into Lower Leon Creek, Segment 1906 of the San Antonio River Basin, the first downstream classified receiving water.
74. TCEQ Rule 307.10(1) has designated high aquatic life uses, primary contact recreation, and public water supply for Segment 1906. 30 Tex. Admin. Code § 307.10(1).
75. Accordingly, the receiving waters of Lower Leon Creek are “fishable/swimmable,” and subject to the requirements of a Tier 2 review.
76. The waters of Helotes Creek were also shown to be fishable/swimmable.
77. Evidence in the record demonstrated that Kerry McEntire and others fish in Helotes Creek in the City of Grey Forest downstream of the proposed discharge for spotted bass, crayfish, and sun perch.
78. Mr. McEntire testified that whenever he goes fishing in Helotes Creek, he is virtually guaranteed to catch sun perch.
79. Further, Mr. McEntire offered unchallenged testimony that he learned to swim in Helotes Creek, that he has taught his children to swim in Helotes Creek, and that insects land on his feet while he is floating in the swimming hole along Helotes Creek.

80. TCEQ staff acknowledge that their aquatic life use determinations are preliminary, meaning they may be modified if new information is received.
81. In this case, the evidence conclusively demonstrated that Helotes Creek in the Grey Forest area is “fishable/swimmable.”
82. Because the entirety of Helotes Creek was classified by the Commission as not fishable/swimmable, the TCEQ performed no Tier 2 anti-degradation review whatsoever with regard to any portion of Helotes Creek.
83. Due to TCEQ’s failure to recognize any portion of Helotes Creek as fishable/swimmable, and TCEQ’s failure to perform any Tier 2 anti-degradation review of any portion of Helotes Creek, the Commission’s decision violated 30 Tex. Admin. Code §§ 305.531(4) and 307.5(b)(2). FOF 36, 37, 38, 43 and 51, as well as COL 8, 10, 11 and 12, are, thus: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

D. Error No. 4. TCEQ erred in issuing the Permit despite the reasonable potential that the authorized discharge would cause excessive growth of aquatic vegetation and impair the aesthetically attractive condition of Helotes Creek.

84. The TSWQS general criteria stipulate that “[s]urface waters must be maintained in an aesthetically attractive condition.” 30 Tex. Admin. Code § 307.4(a)(4).

85. Additionally, “[n]utrients from permitted discharges or other controllable sources must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed, or attainable use.” 30 Tex. Admin. Code § 307.4(e).
86. Aligned Protestants’ expert witness Dr. Lauren Ross explained in her testimony how the proposed discharge could result in excessive algal growth when considering the similarities of the proposed discharge and the receiving waters to other discharges where problems have occurred.
87. Such streams are all characterized by flat, limestone streambeds and relatively shallow waters that receive adequate sunlight to encourage algal growth.
88. Municipal Operations’ own biologist Paul Price admitted that the excessive algal blooms in the Lower San Gabriel River and East Lick Creek (comparable to Helotes Creek) would *not* be considered “aesthetically pleasing” by the general public.
89. Dr. Price also admitted that thick algal mats could impede fishing, a demonstrated use of Helotes Creek.
90. Furthermore, excessive algae growth leads to decreased species diversity and would affect the aquatic life uses and primary contact recreation uses of the receiving waters.
91. Under ordinary conditions, Helotes Creek directly downstream of the proposed discharge is dry outside of intermittent pools, meaning that the discharge will not undergo any dilution of phosphorus concentrations as it travels within this stretch of the discharge route, increasing the risk of excessive algal growth.

92. In sum, the proposed discharge was shown to have the potential to cause excessive algal growth that would fail to maintain the aesthetically attractive condition of the receiving waters.
93. Therefore, issuance of the Permit despite this potential was a violation of the general criteria of the TSWQS at 30 Tex. Admin. Code § 307.4. For this reason, FOF 45 and COL 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion

E. Error No. 5. TCEQ erred in issuing the Permit without giving any consideration to the potential impacts of PFAS contained within the discharge, including impacts on endangered wildlife.

94. While no specific regulatory standards exist for Contaminants of Emerging Concern (“CECs”), including PFAS, consideration of the impacts of toxic substances is required under the TCEQ general criteria found at 30 Tex. Admin. Code § 307.4(d): “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.”
95. The impacts on human and aquatic health of one form of CECs, per- and polyfluoroalkyl substances (“PFAS”), in drinking water and surface water have been evaluated by the U.S. EPA.

96. In April 2024, EPA established enforceable primary drinking water standards for CECs, including PFAS. 89 Fed. Reg. 32532. In December 2024, EPA established the Draft National Recommended Ambient Water Quality Criteria for PFAS. 89 Fed. Reg. 105041.
97. EPA's April 2024 Final Rule found that "animal toxicity studies have reported adverse health effects after oral HFPO-DA exposure, including liver and kidney toxicity and immune, hematological, reproductive, and developmental effects" and "may have an adverse effect on the health of persons." *Id.* at 32544.
98. EPA's health advisories, which identify the concentration of chemicals in drinking water at or below which adverse health effects are not anticipated to occur, are: 0.004 parts per trillion (ppt) for perfluorooctanoic acid (PFOA), 0.02 ppt for perfluorooctane sulfonic acid (PFOS), and 2,000 ppt for potassium perfluorobutane sulfonate (PFBS). 87 Fed. Reg. 36848 (June 21, 2022).
99. These EPA rules and guidance are relevant to surface quality analysis because, under this rule, CECs such as PFAS are properly considered toxic substances under TCEQ Rules 307.4(d) and 307.6.
100. The toxicity of PFAS has also been noted by the State of Texas in its suit against 3M Company, Corteva, Inc., DuPont De Nemours, Inc. and EIDP, Inc. f/k/a E.I. Du Pont de Nemours and Company. *State of Texas v. 3M Company; Corteva, Inc., DuPont de Nemours, Inc., and EIDP, Inc f/k/a E.I. Du Pont de Nemours and Company*, Docket No. DC-C202400996, 18th Judicial District, Johnson County,

Texas. Exhibit GEAA-123, a copy of the original petition in that action, is attached to this Petition as **Exhibit C**.

101. In the Original Petition for that action, the State of Texas noted that, “3M has known for decades that the PFAS contained in its products, such as PFOS, are toxic and adversely affect the environment and human health.”

102. The State of Texas went on to state that: “PFAS are ‘persistent, bioaccumulative and toxic’ (‘PBT’), and exposure in humans may be associated with diseases such as cancer and decreased vaccine response. Further, PFAS, once introduced into the environment, accumulate in fish, game, and other animal and plant life, contaminate drinking water and other natural resources, and accumulate in the blood of humans.”

103. The general criteria TSWQS in Chapter 307 of the TCEQ rules, at § 307.4(d), provide 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.”

104. It was uncontested in the proceedings at SOAH that the discharge will potentially contain PFAS.

105. Since PFAS are toxic, and TCEQ’s rules require that surface waters must not be toxic, a consideration of the impact of PFAS within the discharge is necessary in order to determine that the discharge does not have a reasonable potential to result in a violation of the TSWQS.

106. Yet, TCEQ entered FOF 55, stating that, “Similar to PFAS, TCEQ has no rules regulating Contaminants of Emerging Concern,” and FOF 56, stating that, “TCEQ’s rules concerning toxicity do not regulate PFAS or CECs.”

107. TCEQ erred in entering these findings, considering the relevance of PFAS under 30 Tex. Admin. Code §§ 305.531, 307.4(d) and 307.6.

108. Due to the harmful effects of PFAS, it is also impossible to determine that attainable uses of a water body will be protected as required under the Tier 1 anti-degradation review, and that a discharge will not cause degradation, as required under the Tier 2 anti-degradation review, unless the impacts of PFAS are considered.

109. Municipal Operations referenced a prior order of the TCEQ as establishing, “a clear policy and established precedent” that TCEQ does not regulate CECs as a matter of law, and that TCEQ does not consider CECs (which would include PFAS) to be relevant or material to the issuance of a TPDES permit.

110. To the degree that the Commission relied upon this prior order as establishing general Commission policy, the Commission has engaged in relying upon an invalid rule.

111. Additionally, as part of the prefiled testimony offered during the contested case hearing, Aligned Protestants offered Exhibit GEAA-123, which was a copy of Plaintiff’s Original Petition in the matter of *State of Texas v. 3M Company; Corteva, Inc., DuPont de Nemours, Inc., and EIDP, Inc f/k/a E.I. Du Pont de*

Nemours and Company, Docket No. DC-C202400996, 18th Judicial District, Johnson County, Texas.

112. This Exhibit was objected to by Municipal Operations based on Texas Rule of Evidence 401, asserting that “TCEQ does not regulate PFAS in wastewater permitting cases despite the State of Texas’ recent filing of this pending lawsuit.”
113. The ALJs sustained this objection by their February 13, 2025 Order No. 3: Addressing Prehearing Matters. The ALJs reiterated this ruling during the hearing on the merits.
114. The ALJs’ decision to strike this Exhibit was in error, as the document is relevant to a determination of whether PFAS constitute a toxic pollutant, and the discharge of toxic pollutants must be addressed in the permitting process pursuant to 30 Tex. Admin. Code §§ 305.531(4), 307.1, 307.4(d) and 307.6.
115. TCEQ Rules further provide that “[w]ater in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals, resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three.” 30 Tex. Admin. Code § 307.6(b)(4).
116. The record in this case fails to support a finding that the Draft Permit is protective of wildlife, including endangered karst invertebrates.
117. Municipal Operations’ Endangered Species Habitat Assessment Report performed by Pape-Dawson specifically states that “surface expression of karst invertebrate habitat was identified during the field visit.”

118. In this assessment, Pape-Dawson identified solution channels in the vicinity of the discharge route including those designated as S-07, S-08, and S-09. Municipal Operations' investigation noted that both S-07 and S-08 extended down vertically.

119. The Executive Director's Standards Reviewer, Ms. Labrie, conceded that the possibility existed that solution cavity S-07 potentially extended to below the surface of the streambed of Helotes Creek.

120. Municipal Operations' witness Dr. Price himself did not rule out the potential for karst invertebrates to have a significant likelihood of encountering or being adversely affected by the discharge. He testified that the karst habitat features on the property may or may not have animals living in them, such as the spiders and beetles that received attention in this matter.

121. Dr. Price admitted that he had no idea as to whether the karst features identified by Pape-Dawson extended to a depth below the level of the stream receiving the discharge. Dr. Price also admitted that he did not know how far karst features 7, 8 and 9 are from the receiving streambed.

122. Meanwhile, Municipal Operations' expert Steve Paulson's opinion that species within the solution cavities would not be impacted was based upon a misunderstanding of the relative location of the solution channels and the discharge point, and a conclusory opinion that the wastewater would not harm the species.

123. Overall, the Commission’s determination that karst invertebrates will not be adversely impacted by the discharge failed to recognize and address the potential presence of karst invertebrates along the discharge route.

124. Further, the Commission’s refusal to consider the impacts of PFAS rendered the Commission unable to make a finding that the water would not be toxic to wildlife as required by 30 Tex. Admin. Code § 307.6(b)(4).

125. Therefore, due to the Commission’s disregard for PFAS contained within the discharge; the Commission’s adoption of the ALJs’ erroneous evidentiary ruling excluding the Bertetti deposition; the fact that PFAS in the discharge would be toxic to any karst invertebrates present in the area; and the Commission’s failure to effectively consider impacts upon karst invertebrates, FOF 10, 11, 49, 51, 55, 56, 62, 64, 67 and 68, as well as COL 5, 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

F. Error No. 6. The Commission erred in issuing the Permit despite the reasonable potential that the discharge would adversely affect groundwater quality based upon a general policy which has not been adopted by rule that the protection of surface water ensures the protection of groundwater.

126. Under Texas Water Code § 26.401(c)(1), it is State policy that “discharges of pollutants, disposal of wastes, or other activities subject to regulation by state

agencies be conducted in a manner that will maintain present uses and not impair potential uses of groundwater or pose a public health hazard.”

127. 30 Tex. Admin. Code § 309.12 further requires that the “[t]he commission may not issue a permit for a new facility . . . unless it finds that the proposed site, when evaluated in light of the proposed design, construction or operational features, minimizes possible contamination of water in the state.”

128. In making this determination, the same rule provides that the Commission may consider several factors, including “groundwater conditions such as groundwater flow rate, groundwater quality, length of flow path to points of discharge, and aquifer recharge or discharge conditions.” 30 Tex. Admin. Code § 309.12(2).

129. Aligned Protestants’ expert Dr. Ron Green provided extensive testimony that groundwater in the area of the proposed discharge is particularly sensitive to groundwater contamination. The receiving waters are located in the Contributing Zone of the Edwards Aquifer, which is hydraulically connected to the Recharge Zone, allowing minimally diluted contaminants to travel rapidly through the system at a rate of approximately one mile per day.

130. Helotes Creek shortly downstream of the discharge crosses a fault, which may serve as a conduit for the movement of contaminants in the discharge into the groundwater. Due to this high transport rate, contaminants—including pathogens—will have limited time to be mitigated before reaching nearby groundwater wells, posing a significant risk to drinking water supplies.

131. Dr. Green noted that wells used for domestic supply at the Ann Toepperwein household and the Lynette Toepperwein Munson household are located within 0.5 miles of where Helotes Creek exits Guajolote Ranch, meaning that effluent discharged upstream of these wells could arrive at the wells within one to two days of the time of discharge.

132. Such domestic wells in the area are typically developed in the Upper Glen Rose (a component of the Trinity Aquifer) given that this aquifer has freshwater at a depth shallower than the Lower Glen Rose Aquifer.

133. Dr. Green's site inspection confirmed the presence of fractured bedrock and faults in the creek bed, which serve as conduits for contaminants to enter the aquifer.

134. Both the shallow domestic wells and the deeper Grey Forest Utility ("GFU") wells are at risk of contamination. The shallow wells, such as those owned by the Toepperwein household, are in a karst aquifer where the potential exists for a close connection with the downstream waters.

135. This creates a high likelihood that recharge that occurs in the creek bed will reach the groundwater wells near the creek bed.

136. While the wells owned by GFU are completed to a greater depth, the potential still exists for contaminants from the discharge to reach these wells due to the faults located between the wells and the discharge point. This could occur in less than 24 hours. The GFU wells are located within 0.25 miles of Helotes Creek, "meaning that the contaminants will not have far to travel in order to move from the creekbed to the wells," in Dr. Green's words.

137. The Commission’s Final Order includes a finding that “The discharge’s compliance with the TSWQS, which ensure that the surface water will be protected and not degraded, also ensures that groundwater will not be degraded.”

138. This is more accurately considered a conclusion of law, rather than a finding of fact, as it sets forth a policy determination by the Commission. There is no support for this conclusion, particularly given that such “policy” has never been adopted by rule, and nitrate is a potentially harmful contaminant in groundwater which was not the subject of any regulation by the Commission’s application of the TSWQS in this case.

139. The TSWQS establish no limit on contaminants relevant to the protection of groundwater quality and thus fail to protect groundwater quality. As one example, the TSWQS as applied in this case allow the discharge of nitrate with no limit on the concentration or amount of nitrate discharged.

140. Nitrate is a contaminant subject to a primary drinking water standard of 10 mg/L, but in studies, nitrates in lower concentrations have been linked to increased risk of colorectal, bladder, and breast cancer, thyroid disease, diabetes, and birth defects.

141. In addition, as discussed above, PFAS can be toxic, but TCEQ’s application of the TSWQS involves no consideration of PFAS. This lack of regulation of PFAS in surface water is another way by which the application of the TSWQS fails to ensure protection of groundwater quality. This is particularly of concern given that

the Edwards Aquifer Authority has performed sampling of groundwater wells in the area that shows PFAS to already be present within those wells.

142. The Commission’s reliance upon a general policy that compliance with the TSWQS ensures that groundwater will not be degraded constitutes reliance upon an invalid rule, which also has no basis in the record. For this reason, FOF 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

G. Error No. 7. The Commission erred in relying on speculative evidence and excluding relevant evidence relating to the potential impacts of the discharge upon groundwater.

143. The Commission’s Final Order includes a finding of fact that, “Domestic drinking water wells in the vicinity of the discharge are completed in the Middle Trinity Aquifer.” This finding was based on nothing more than speculation by Municipal Operations’ witness as to the decisions that an unknown well-driller almost a century ago would have made.

144. This Finding of Fact was also premised upon a record which had excluded Aligned Protestants’ Exhibit GF-8, the deposition of F. Paul Bertetti.

145. Mr. Bertetti is the Senior Director of Aquifer Science, Research and Modeling at the Edwards Aquifer Authority (“EAA”). He testified by deposition that the EAA

had performed sampling of groundwater wells in the Grey Forest area, completed in both the Upper Trinity and Lower Trinity, as well as a combination thereof.

146. He noted that many wells in the area are drilled to depths without specific units to which they are open and collect water from.

147. This testimony by Mr. Bertetti indicated that the wells in the area are not completed in a fashion so that they are only “open” to the formation at their depth of completion, as a properly-completed modern well would be. Rather, this testimony indicates that a well completed, for example, into the Middle Trinity Aquifer may still be drawing water from both the Middle Trinity *and* the Upper Trinity Aquifer.

148. Mr. Bertetti also offered testimony that PFAS have been detected in the sampling of groundwater wells in the area of the groundwater wells of concern in the Permit.

149. This testimony was obtained by Aligned Protestants’ deposition of Mr. Bertetti. During that deposition, the counsel for Municipal Operations was given the opportunity to question Mr. Bertetti, but chose to use that opportunity to engage in persistent harassing examination of the witness, which led to the counsel for Mr. Bertetti ending the deposition.

150. Municipal Operations moved to strike Mr. Bertetti’s deposition based upon the fact that the deposition had been terminated by Mr. Bertetti’s counsel, even though Municipal Operations had made no efforts to pursue further questioning of Mr. Bertetti. The ALJs granted this motion, and ruled that they would exclude his deposition testimony, and exclude questioning based upon that document.

151. The Commission erred in premising its finding that groundwater would be protected in light of the alleged fact that the groundwater wells owned by Aligned Protestants were located in the Middle Trinity Aquifer. Even if it was true that Aligned Protestants' wells all draw solely from the Middle Trinity Aquifer (the speculative testimony from Municipal Operations' witnesses did not support such a finding), TCEQ rules require the protection of *all* groundwater – not just the groundwater where protesting parties own wells.

152. The Commission erred in rejecting the deposition testimony of Mr. Bertetti, which showed that the identified groundwater wells would potentially draw water from the upper, most impacted, groundwater layers. This excluded deposition testimony would have disproved the ultimate conclusions adopted by the Commission.

153. Because the Commission failed to address the protection of groundwater located within the Upper Trinity Aquifer (based upon speculative testimony that was not probative evidence), FOF 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

154. Furthermore, the deposition testimony of Mr. Bertetti was relevant and material, and the fact that Municipal Operations' counsel chose to engage in harassing questioning of Mr. Bertetti did not justify the exclusion of the deposition of Mr.

Bertetti. Accordingly, the ALJs' exclusion of that deposition, and the Commission's adoption of that exclusion, as well as FOF 59, 60 and 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

H. Error No. 8. Issuance of the Permit without addressing the potential impact of the discharge upon karst invertebrates violated the Commission's own rules.

155. The Commission erred in failing to perform a case-specific evaluation of impacts upon endangered species, instead relying upon a 1998 U.S. Fish and Wildlife Service Biological Opinion.
156. The endangered species review identified by the Commission in its Final Order is premised upon a 1998 biological opinion of the USFWS and looked only to aquatic or aquatic dependent species in priority watersheds of critical concern.
157. This is relied upon in the Commission's Final Order as a reason to excuse the consideration of karst invertebrates, based upon a finding that karst invertebrates are not aquatic or aquatic dependent species.
158. As previously observed by the Environmental Protection Agency, 30 Tex. Admin. Code § 307.6(4) protects all wildlife, including terrestrial wildlife and requires a

case-specific analysis of the potential impact of a discharge upon endangered species.

159. The mere protection of “limited” aquatic life uses, as was performed for the receiving waters of Helotes Creek, does not implement this rule for such species.

160. The Commission’s lack of any case-specific evaluation of the potential impact of the discharge upon endangered karst invertebrates is a violation of 30 Tex. Admin. Code § 307.6(4).

161. However, evidence – discussed at length under Error No. 5 *supra* – demonstrated that such karst invertebrates may be present in the area of the discharge.

162. Therefore, FOF 62, 64, 66 and 67, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

I. Error No. 9. The Commission’s findings of fact are conclusory, and do not adequately resolve the legitimate factual disputes in this matter.

163. When adopting findings of fact, the findings of the agency must be based on the evidence. Tex. Gov’t Code § 2001.141(c).

164. Findings of fact that set forth statutory language must include explicit underlying fact findings. *Id.* Findings should be stated as the agency’s findings and should

relate to material basic facts. *Charter Med.—Dallas*, 665 S.W.2d at 451. And the findings should resolve legitimate factual disagreements. *Id.* A mere recital of testimony or summations of evidence is inadequate. *Id.* Nor is it enough to simply find that the requisite information was included in the permit application. *Id.*

165. The record in this case presented numerous factual disputes that are not addressed in the Commission's Final Order with adequate specificity.

166. For example, as to the Tier 1 anti-degradation review, the Commission's Final Order simply states, by FOF 49, in a conclusory manner, that the ED properly conducted a Tier 1 review for all water bodies. This does not address and resolve the factual dispute as to whether Helotes Creek should be considered to be of high aquatic life uses, which is a legitimate factual disagreement in this matter.

167. Similarly, the Commission failed to address the evidence that Helotes Creek is fishable/swimmable and thus should be subjected to a Tier 2 review.

168. Furthermore, the Final Order wholly fails to resolve disputes as to the potential impact of PFAS.

169. This inadequacy renders FOF 37, 49, 55, 66 and 67 and COL 8, 10, 11 and 12: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

J. Error No. 10. The Commission improperly allocated the burden upon the parties.

170. Texas Government Code Section 2003.047(i-1)-(i-3) sets out the procedure for the presentation of evidence at the SOAH hearing.

171. The permit applicant—here, Municipal Operations—may rely on the administrative record for its initial presentation of evidence (i.e., its direct case), and benefits from a *prima facie* demonstration once the administrative record is filed.

172. A protesting party may then rebut the *prima facie* demonstration by presenting evidence that (1) relates to an issue that was submitted to SOAH by TCEQ when the matter was referred, and (2) demonstrates that one or more provisions of the draft permit violate a state or federal requirement.

173. If the protesting party rebuts the *prima facie* demonstration, then, the applicant must present additional evidence to support its case.

174. Because the permit applicant maintains the burden of proof throughout this process, a protesting party’s burden is akin to a burden of production. *See* 40 Tex. Reg. 9688 (Dec. 25, 2015) (explaining, in regard to TCEQ rules implementing SB709, that while the burden of proof remains with the applicant, that burden can be met “by the submittal of the administrative record to and its admittance into the evidentiary record by SOAH, subject to rebuttal as provided in new Texas Government Code § 2003.047(i-2). In addition, SB 709 does not establish the evidentiary standard for any party in a [contested case hearing], nor does it provide

any direction to SOAH or the commission to establish a new standard for the rebuttal demonstration in new Texas Government Code § 2003.047(i-2). Because [contested case hearings] are similar to non-jury civil trials in district court, the evidentiary standard in [contested case hearings] for permit applications is ‘preponderance of the evidence.’”).

175. If a protesting party satisfies this burden of production, then, the *prima facie* demonstration no longer applies with regard to the contested issue, and the permit applicant may not rely on the *prima facie* presumption based on the filing of the administrative record. More is required.

176. The ALJ is then tasked with making findings of fact, conclusions of law, and any ultimate findings, all of which must be separately stated. Tex. Gov’t Code § 2003.047(l); Tex. Health & Safety Code § 361.0832(a). The Commission thereafter must issue a final decision that also includes findings of fact and conclusions of law, separately stated. Tex. Gov’t Code § 2001.141. The requirements for these findings are discussed above

177. In this case, on a number of contested issues, the ALJs failed to correctly implement the parties’ relative legal burdens, relieving Municipal Operations of its burden of proof by a preponderance of the evidence on issues where the *prima facie* demonstration was rebutted by Aligned Protestants’ evidence. The ALJs then presented the Commission with a Proposed Order that failed to engage with the evidence presented and resolve the factual disputes based on the evidence.

178. Among other issues, the ALJs, and the Commission, improperly imposed a burden of persuasion upon Aligned Protestants on issues related to groundwater impacts (wherein the Commission placed the burden on Aligned Protestants to prove that impacted wells were in the Upper Trinity, and prove a migration pathway even though Municipal Operations' witness said such a pathway could exist), as well as impacts upon wildlife (wherein the Commission placed the burden upon Aligned Protestants to prove that endangered species were present in impacted areas), and surface water impacts (particularly those related to the modeling of dissolved oxygen).

179. This misallocation of the burden of proof rendered FOF 13, 37, 39, 43, 49, 59, 60, 61, 62, 64, 66, 67 and 69 and COL 8, 10, 11, 12, 13 and 15: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

VIII. CONCLUSION & PRAYER

WHEREFORE, PREMISES CONSIDERED, Plaintiff prays that this Court reverse the Commission's Order Granting the Application by Municipal Operations, LLC for New TPDES Permit No. WQ0016171001. Plaintiff further prays that the Court assess court costs against the Defendant and accord Plaintiff any further relief, including temporary relief, to which Plaintiff may be entitled.

Respectfully submitted,

/s/ Eric Allmon

Eric Allmon

State Bar No. 24031819

callmon@txenvirolaw.com

PERALES, ALLMON & ICE, P.C.

1206 San Antonio St.

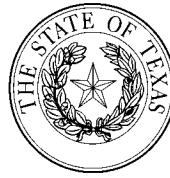
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*Counsel for Greater Edwards Aquifer
Alliance*

EXHIBIT A

Brooke T. Paup, *Chairwoman*
Catarina R. Gonzales, *Commissioner*
Tonya R. Miller, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 30, 2025

TO: Persons on the attached mailing list.

RE: Municipal Operations, LLC
TCEQ Docket No. 2024-0670-MWD
SOAH Docket No. 582-25-01778
Permit No. WQ0016171001

Decision of the Commission on Application.

The Texas Commission on Environmental Quality (“TCEQ” or “Commission”) has made a decision to grant the above-referenced permit application. Enclosed with this letter is a copy of the Commission’s order. Unless a Motion for Rehearing (“MFR” or “motion”) is timely filed with the chief clerk, this action of the Commission will become final. A MFR is a request for the Commission to review its decision on the matter. Any motion must explain why the Commission should review the decision.

Deadline for Filing Motion for Rehearing.

An MFR must be received by the chief clerk’s office no later than the 25th day after the date that the Commission’s order on this application is signed. The date of signature is indicated on the last page of the enclosed order.

Motions may be filed with the chief clerk electronically at www.tceq.texas.gov/goto/efilings or by filing an original with the Chief Clerk at the following address:

Laurie Gharis, Chief Clerk
TCEQ, MC-105
P.O. Box 13087
Austin, Texas 78711-3087
Fax: 512/239-3311

In addition, a copy of the motion must be sent on the same day to each party in this matter. A certificate of service stating that copies of the motion were sent to each party in this matter must also be attached to the motion that is sent to the chief clerk. The procedures for filing and serving an MFR and responses are located in 30 TAC § 80.272, Texas Governmental Code § 2001.146 as revised by Senate Bill 1267 (84th Regular Session, effective September 1, 2015), and 30 TAC §§ 1.10 and 1.11. The hardcopy filing requirement is waived by the General Counsel pursuant to 30 TAC § 1.10(h).

The written motion must contain (1) the name and representative capacity of the person filing the motion; (2) the style and official docket number assigned by SOAH (if referred to SOAH) and the official docket number assigned by the Commission; (3) the date of the order; (4) the particular findings of fact or conclusions of law that are the subject of the complaint and any evidentiary or legal ruling claimed to be erroneous; and (5) the legal and factual basis for the claimed error.

Unless the time for the Commission to act on the MFR is extended, the MFR is overruled by operation of law at 5:00 p.m. on the 55th day after the date that the Commission's order on this matter is signed.

If you have any questions or need additional information about the procedures described in this letter, please call the Public Education Program, toll free, at 1-800-687-4040.

Sincerely,

A handwritten signature in black ink that reads "Laurie Gharis". The signature is fluid and cursive, with "Laurie" on the top line and "Gharis" on the bottom line.

Laurie Gharis
Chief Clerk

LG/erg

Enclosure



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**AN ORDER
GRANTING THE APPLICATION BY
MUNICIPAL OPERATIONS, LLC
FOR NEW TPDES PERMIT NO. WQ0016171001
TCEQ DOCKET NO. 2024-0670-MWD;
SOAH DOCKET NO. 582-25-01778**

On October 22, 2025, the Texas Commission on Environmental Quality (TCEQ or Commission) considered the application (Application) of Municipal Operations, LLC (Applicant) for new Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0016171001 to discharge treated domestic wastewater from a proposed wastewater treatment facility (Facility) to be located in Bexar County, Texas. A Proposal for Decision (PFD) was issued by Pratibha J. Shenoy and Shelly M. Doggett, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH) and considered by the Commission.

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

I. FINDINGS OF FACT

Application

1. Applicant filed its Application for a new TPDES permit with TCEQ on May 23, 2022. The Application requests authorization to discharge treated domestic wastewater from a proposed Facility to be located approximately 1.75 miles west-southwest of the intersection of Babcock Road and Scenic Loop Road in Bexar County, Texas.
2. The treated effluent will be discharged via pipe to Helotes Creek, then to an on-site pond, then to Helotes Creek, then to Culebra Creek, then to Lower Leon Creek in Segment No. 1906 of the San Antonio River Basin. The unclassified receiving water uses are minimal aquatic life use for Helotes Creek (upstream of unnamed tributary), and limited aquatic life use for the pond and for Helotes Creek (downstream of unnamed tributary). The designated uses for Segment No. 1906 are primary contact recreation, public water supply, and high aquatic life use.
3. TCEQ's Executive Director (ED) declared the Application administratively complete on August 30, 2022.
4. The ED completed the technical review of the Application on November 16, 2022, prepared a draft permit (Draft Permit), and made the Draft Permit available for public review and comment.

Draft Permit

5. The Draft Permit would authorize a discharge of treated domestic wastewater at a daily average flow not to exceed 0.2 million gallons per day (MGD) in the Interim I Phase, 0.4 MGD in the Interim II Phase, and 1.0 MGD in the Final Phase.
6. The Facility will operate as a membrane bioreactor (MBR) wastewater treatment system which operates in conventional mode with chemical phosphorus removal capability.
7. The Facility would have treatment units in the Interim I Phase that will include a primary fine screen, an equalization tank, a secondary fine screen, an anoxic tank, an aeration basin, an aerated MBR tank, a sludge holding tank, and an

ultraviolet light (UV) disinfection system. Treatment units in the Interim II Phase will include a primary fine screen, two equalization tanks, two secondary fine screens, two anoxic tanks, two aeration basins, two aerated MBR tanks, a sludge holding tank, and an UV disinfection system. Treatment units in the Final Phase will include a primary fine screen, four equalization tanks, four secondary fine screens, four anoxic tanks, four aeration basins, four aerated MBR tanks, a sludge holding tank, and an UV disinfection system. The facility has not been constructed.

8. The Draft Permit includes effluent limits, general requirements, and other requirements, such as disinfection, monitoring procedures and frequencies for conventional parameters. The Draft Permit also requires biomonitoring or Whole Effluent Toxicity testing once the permitted flow reaches 1.0 MGD.
9. The effluent limitations in all Phases of the Draft Permit, based on a 30-day average, are 5.0 milligrams per liter (mg/L) five-day carbonaceous biochemical oxygen demand (CBOD₅), 5.0 mg/L total suspended solids (TSS), 2.0 mg/L ammonia-nitrogen (NH₃-N), 0.15 mg/L of total phosphorous (TP), 4.0 mg/L minimum dissolved oxygen (DO), and 126 colony forming units (CFU) or most probable number (MPN) of *E. coli* per 100 milliliters (ml) of effluent.
10. A Tier 1 antidegradation review has determined that existing water quality uses will not be impaired by this permit action, and numerical and narrative criteria to protect existing uses will be maintained.
11. A Tier 2 antidegradation review has determined that no significant degradation of water quality is expected in the Lower Leon Creek, which has been identified as having high aquatic life uses; and that existing uses will be maintained and protected.
12. The end-of-pipe compliance with pH limits between 6.0 and 9.0 standard units reasonably assures instream compliance with the Texas Surface Water Quality Standards (TSWQS) for pH.
13. The discharge from the Facility is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species, or their critical habitat.

14. Segment No. 1906 of the San Antonio River Basin is currently listed on the State's inventory of impaired and threatened waters. The listing is for bacteria (*E. coli*) and for polychlorinated biphenyls (PCBs) and per- and polyfluoroalkyl substances (PFAS) in bottom sediment and edible fish tissue.
15. The Draft Permit requires Applicant to comply with the requirements of 30 Texas Administrative Code (TAC) § 309.13(a) and to provide facilities for the protection of its wastewater treatment facility from a 100-year flood.

Notice and Jurisdiction

16. The Notice of Receipt of the Application and Intent to Obtain a Water Quality Permit (NORI) was published in English on September 22, 2022, in the *San Antonio Express-News* and in Spanish on September 28, 2022, in the *Conexión*.
17. The Notice of Application and Preliminary Decision (NAPD) was published in English on April 5, 2023, in the *San Antonio Express-News* and in Spanish in the *Conexión* on April 5, 2023.
18. Complete copies of the Application and the Draft Permit were placed at the Igo Library located at 13330 Kyle Seale Parkway, San Antonio, Texas 78249, for public viewing and comment.
19. A public meeting was held on May 9, 2023, which closed the comment period for the Application.
20. TCEQ received timely hearing requests from: San Antonio Metropolitan Health District (MetroHealth), Greater Edwards Aquifer Alliance (GEAA), the City of Grey Forest (Grey Forest), and Elizabeth Ann Toepperwein based upon issues raised during the public comment period.
21. TCEQ issued its Response to Comments on January 5, 2024.
22. On August 4, 2024, the Commission considered the hearing requests at its open meeting and, on August 22, 2024, issued an Interim Order, granting the hearing request of MetroHealth, GEAA and Ms. Toepperwein, denying the request of Grey Forest, referring the following seven issues to SOAH, denying all issues not referred, and setting the maximum duration of the hearing at

180 days from the date of the preliminary hearing until the date the PFD is issued by SOAH:

- A. Whether the draft permit is adequately protective of water quality, including the protection of surface water, groundwater, and drinking water wells;
- B. Whether the draft permit is protective of wildlife, including endangered species, in accordance with the TSWQS in 30 TAC chapter 307;
- C. Whether the draft permit adequately addresses nuisance odor, in accordance with 30 TAC § 309.13(e);
- D. Whether the draft permit complies with siting requirements regarding flood plains and wetlands, in accordance with 30 TAC chapter 309;
- E. Whether Applicant substantially complied with applicable public notice requirements;
- F. Whether Applicant adequately identified the operator in the application; and
- G. Whether the Commission should deny or alter the terms and conditions of the draft permit based on consideration of need, under Texas Water Code (TWC) § 26.0282 and the general policy to promote regional or area-wide systems, under TWC § 26.081.

23. On October 17, 2024, notice of the preliminary hearing was published in English in the *San Antonio Express-News*. The notice included the time, date, and place of the hearing, as well as the matters asserted, in accordance with the applicable statutes and rules.

Proceedings at SOAH

24. On November 21, 2024, a preliminary hearing was convened in this case via videoconference by SOAH ALJs Shenoy and Doggett. The following appeared and were admitted as parties: Applicant, MetroHealth, GEAA, Ms. Toepperwein, the ED, and the TCEQ Office of Public Interest Counsel (OPIC). Grey Forest moved for reconsideration of its request to be considered an affected person, which motion was granted. GEAA, Grey Forest, and

Ms. Toepperwein, all represented by the same counsel, were aligned as parties. Ms. Toepperwein later clarified that she was participating as a member of GEAA and did not seek standing as an individual. MetroHealth was not aligned with any of the parties.

25. Jurisdiction was taken by the ALJs and the Administrative Record, comprised of Applicant's Exhibit 1, was admitted at the preliminary hearing.
26. On December 30, 2024, MetroHealth filed a motion to withdraw, stating that it had reached a settlement with Applicant.
27. On January 17, 2025, Applicant filed a motion for partial summary disposition (MPSD) and asserted that summary disposition should be granted on referred Issues C, D, E, F and G.
28. On February 4, 2025, the ALJs issued Order No. 2, granting MetroHealth's motion to withdraw and dismissing MetroHealth from the case, among other things.
29. A prehearing conference was held via videoconference on February 12, 2025, at which the ALJs heard oral argument on Applicant's MPSD.
30. On February 13, 2025, the ALJs issued Order No. 3, granting Applicant's MPSD on referred Issues C, E and F, and denying the MPSD as to referred Issues D and G.
31. The ALJs convened the hearing on the merits via videoconference on February 18-21, 2025. Applicant was represented by attorneys Helen Gilbert and John Manning; the ED was represented by attorneys Bradford Eckhart and Fernando Salazar Martinez; OPIC was represented by attorneys Jennifer Jamison and Josiah Mercer; and Protestants were represented by attorneys Eric Allmon, Lauren Ice, and Lauren Alexander.
32. The parties filed closing briefs on March 11, 2025, and reply briefs on March 21, 2025. The record closed on March 21, 2025.

Referred Issue A: Whether the draft permit is adequately protective of water quality, including surface water, groundwater, and drinking water wells.

33. The TSWQS apply to surface water in the state and are set by the Commission to be protective of water quality consistent with public health and enjoyment, propagation and protection of terrestrial and aquatic life, operation of existing industries, and other environmental and economic resources.
34. TCEQ has standard procedures for implementing the TSWQS, referred to as the Implementation Procedures (IPs), which are approved by the federal Environmental Protection Agency (EPA).
35. The proposed Facility is located on an undeveloped approximately 1,167-acre tract known as the Guajolote Ranch and is located over the Contributing Zone of the Edwards Aquifer. The Commission establishes effluent limits for TPDES-permitted wastewater treatment plants (WWTPs) that affect the Edwards Aquifer in 30 TAC chapter 213.

DO Modeling

36. The treated effluent will be discharged via pipe to Helotes Creek, then to an on-site pond, then to Helotes Creek, then to Culebra Creek, then to Lower Leon Creek in Segment No. 1906 of the San Antonio River Basin. The ED assigned minimal aquatic life use (2.0 mg/L minimum DO criterion) to Helotes Creek upstream of the unnamed tributary on the Facility site and limited aquatic life use (3.0 mg/L minimum DO) to Helotes Creek at the pond and downstream until the confluence with Lower Leon Creek/Segment 1906. The designated uses for Segment No. 1906 are primary contact recreation, public water supply, and high aquatic life use (5.0 mg/L minimum DO).
37. The assigned aquatic life use designations for the water bodies at issue in this Application are accurate.
38. Helotes Creek is an intermittent stream and is normally dry at the proposed discharge point.
39. In the absence of adequate site-specific width, depth, flow, and velocity data for the receiving water body, the ED uses standardized hydraulic coefficient

assumptions in an uncalibrated QUAL-TX model to predict the effects of an effluent discharge on DO concentrations downstream. These assumptions have been shown to be representative of Texas streams and have been approved by TCEQ and the EPA.

40. The standardized hydraulic coefficients assume zero ambient flow, full discharge flow, and a temperature of 30.5 degrees Celsius to simulate critical conditions.
41. The ED's standard practice is to consider a DO criterion to be met if the QUAL-TX model predicts a DO concentration that is within 0.2 mg/L of the assigned criterion.
42. The ED's DO modeling predicts that the minimum DO concentrations will be met or exceeded for all water bodies in the discharge route based on effluent limits of 5.0 mg/L CBOD₅, 5.0 mg/L TSS, 2.0 mg/L NH₃-N, 0.15 mg/L TP, and 4.0 mg/L minimum DO per grab.
43. The ED's DO modeling complied with applicable regulations to ensure the Draft Permit is protective of water quality.

Nutrient Screening

44. When setting nutrient limits for wastewater discharges, TCEQ focuses on TP instead of total nitrogen (TN) because substantially less data exists on TN for Texas waters; phosphorus is a primary nutrient in freshwaters; nitrogen can be fixed directly from the atmosphere by most of the noxious forms of blue-green algae; and available technologies make reducing phosphorus more effective than reducing nitrogen as a means of limiting algal production.
45. Based on nutrient screening, the ED determined a TP limit was appropriate to prevent excess accumulation of algae in the receiving waters.
46. Hill Country streams such as Helotes Creek typically have mineral content that forms insoluble precipitates making phosphorus biologically unavailable for algae growth. Some of the algae growing in these streams deposit calcium carbonate that traps phosphorus. These processes are reasonably expected to continue and will reduce the impact of TP in the discharge.

47. The proposed 0.15 mg/L TP limit in the Draft Permit is stricter than the typical limit of 1.0 to 0.5 mg/L recommended by the IPs for a flow of 0.5 to 3.0 MGD and is more stringent than the 1.0 mg/L TP limit required by the Commission for discharges over the Edwards Aquifer's Recharge Zone (which does not encompass the Facility).
48. The absence of a TN limit in the Draft Permit is consistent with the IPs, given that the TP limit is already low enough to avoid growth of nuisance algae, the only drinking water supply is nearly 20 miles away from the outfall, and no unusually sensitive tidal waters are at issue.

Antidegradation Review

49. The ED properly conducted a Tier 1 review for all water bodies at issue in this case.
50. The predicted DO concentrations for the receiving waters and the *E. coli* limit (set at the most stringent level assigned for primary contact recreation) for the discharge will be adequate to maintain existing uses and water quality sufficient to protect those existing uses, satisfying a Tier 1 review.
51. The ED properly conducted a Tier 2 review for Segment 1906.
52. Although Segment 1906 is listed as impaired for bacteria in the Draft 2024 Texas Integrated Report of Water Quality Impairments (Draft 2024 Integrated Report), only one of 201 samples exceeded the criterion for *E. coli*.
53. The Draft 2024 Integrated Report lists Segment 1906 as impaired for PCBs and PFAS in bottom sediment and edible fish tissue from the confluence with Indian Creek upstream to a point 100 meters upstream of State Highway 16 northwest of San Antonio. However, there is no indication that the Facility's discharge will contain PCBs, and TCEQ has no rules regulating PFAS.
54. The preponderant evidence indicates water quality as a whole in Segment 1906 will not be lowered by more than a *de minimis* amount, satisfying a Tier 2 review.

Toxicity Concerns

55. Similar to PFAS, TCEQ has no rules regulating Contaminants of Emerging Concern (CECs) in TPDES permits.
56. TCEQ's rules concerning toxicity do not regulate PFAS or CECs.

Protection of Groundwater and Drinking Water Wells

57. The Facility's discharge point is more than 250 feet from any private wells and more than 500 feet from any public wells. Grey Forest's two wells, operated by Grey Forest Utilities (GFU), are located approximately 2.2 miles from the discharge point.
58. GFU's two wells are completed in the Middle Trinity Aquifer.
59. Domestic drinking water wells in the vicinity of the discharge are completed in the Middle Trinity Aquifer.
60. There is no geologic pathway for the treated discharge to contaminate area drinking water wells because there is an aquitard between the Upper and Middle Trinity Aquifers.
61. The discharge's compliance with the TSWQS, which ensure that surface water will be protected and not degraded, also ensures that groundwater will not be degraded.

Referred Issue B: Whether the draft permit is protective of wildlife, including endangered species, in accordance with the TSWQS in 30 TAC Chapter 307.

62. There are no threatened or endangered species, or critical habitat for endangered or threatened species, on Guajolote Ranch.
63. The closest designated Critical Habitat Units (CHUs) are for karst invertebrates (or cave bugs) in the Helotes Creek watershed and are located approximately 2.7 miles from the outfall. Solution cavities that could be designated as potential cave bug habitat in the future are upgradient or upslope from and not located in Helotes Creek.

64. The ED's endangered species review is compliant with the 1998 U.S. Fish and Wildlife Service Biological Opinion, which requires the evaluation of only aquatic or aquatic-dependent species in priority watersheds of critical concern in TPDES permitting. Applicant's discharge will not flow to any priority watersheds of critical concern.
65. The Golden-cheeked Warbler, Black-capped Vireo, and karst invertebrates are not aquatic or aquatic-dependent species.
66. There will be no effect to any federally-listed species because of the discharge from Applicant's WWTP.
67. The Draft Permit's maintenance of aquatic life uses protects aquatic life, terrestrial life, and wildlife, including endangered species.
68. The TCEQ has no rules regulating PFAS and CECs in TPDES permits. TCEQ's rules concerning toxicity do not regulate PFAS or CECs.

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

69. No party presented evidence rebutting the *prima facie* demonstration that the Draft Permit adequately addresses nuisance odor in accordance with 30 TAC § 309.13(e).
70. The Draft Permit adequately addresses nuisance odor in accordance with 30 TAC § 309.13(e).

Referred Issue D: Whether the draft permit complies with the siting requirements regarding flood plains and wetlands, in accordance with 30 TAC Chapter 309.

71. The proposed Facility will not be located in a 100-year floodplain or within a wetland.
72. No party presented evidence that the Draft Permit would violate the chapter 309 rules regarding siting of treatment facilities in floodplains or wetlands.

73. A review of the National Wetlands Inventory Mapper tool and the USDA NRCS Web Soil Survey tool indicated that wetlands were not likely on the Site, and no wetlands delineation is required to be prepared for a TPDES application by TCEQ.
74. The 30 TAC chapter 309 requirements only pertain to the WWTP site.

Referred Issue E: Whether Applicant substantially complied with applicable notice requirements.

75. No party presented evidence rebutting the *prima facie* demonstration that Applicant substantially complied with applicable notice requirements.
76. Applicant substantially complied with applicable notice requirements.

Referred Issue F: Whether the Applicant adequately identified the operator in the Application.

77. No party presented evidence rebutting the *prima facie* demonstration that Applicant adequately identified the operator in the Application.
78. Applicant adequately identified the operator in the Application.

Referred Issue G: Whether the Commission should deny or alter the terms and conditions of the draft permit based on considerations of need, under TWC § 26.0282 and the general policy to promote regional or area-wide systems, under TWC § 26.081.

79. No permitted wastewater treatment facilities or collections systems are located within three miles of the Site.
80. There is a determined need for a WWTP to provide treatment for the wastewater generated by approximately 2,900 Living Unit Equivalent connections that will inhabit the Site, as the closest WWTP with capacity to serve the Site is approximately 17 miles away and service from that San Antonio Water System WWTP is not feasible.
81. The only alternative to the proposed WWTP would be to utilize septic tanks, which provide inferior standards of treatment and groundwater protection.

82. The terms and conditions of the Draft Permit should not be altered, and the Draft Permit should not be denied, based on considerations of need under TWC § 26.0282 and the regionalization policy under TWC § 26.081.

Transcription Costs

83. Protestants and Applicant fully participated in the hearing by presenting witnesses and cross-examining witnesses, and both benefitted from the preparation of a transcript.
84. There was no evidence that any party subject to allocation of costs is financially unable to pay a share of the costs.
85. The total cost for recording and transcribing the hearing on the merits was \$11,719.

II. CONCLUSIONS OF LAW

1. TCEQ has jurisdiction over this matter. TWC chs. 5, 26.
2. SOAH has jurisdiction to conduct a hearing and to prepare a PFD in contested cases referred by the Commission under Texas Government Code § 2003.047.
3. Notice was provided in accordance with TWC §§ 5.114 and 26.028, Texas Government Code §§ 2001.051-.052, and 30 TAC §§ 39.405 and .551.
4. The Application is subject to the requirements in Senate Bill 709, effective September 1, 2015. Tex. Gov't Code § 2003.047(i-1)-(i-3).
5. The Administrative Record established a *prima facie* demonstration that: (1) the Draft Permit meets all state and federal legal and technical requirements; and (2) a permit, if issued consistent with the Draft Permit, would protect human health and safety, the environment, and physical property. Tex. Gov't Code § 2003.047(i-1); 30 TAC § 80.17(c)(1).
6. Applicant retains the burden of proof on the issues regarding the sufficiency of the Application and compliance with the necessary statutory and regulatory requirements. 30 TAC § 80.17(a).

7. To rebut the *prima facie* demonstration, a party must present evidence that (1) relates to a matter referred under TWC § 5.557; and (2) demonstrates that one or more provisions in the Draft Permit violates a specifically applicable state or federal requirement. Tex. Gov't Code § 2003.047(i-2); 30 TAC § 80.17(c)(2).
8. No party rebutted the *prima facie* demonstration. Tex. Gov't Code § 2003.047(i-2); 30 TAC § 80.117(c).
9. To ensure adequate protections to potable water sources and supplies, a WWTP unit may not be located closer than 500 feet from a public water well, nor 250 feet from a private water well. 30 TAC § 309.13(c).
10. The Draft Permit is adequately protective of water quality, including surface water, groundwater, and drinking water wells.
11. A discharge of effluent from the Facility that is compliant with the effluent limits in the Draft Permit will comply with the TSWQS in 30 TAC chapter 307.
12. The Draft Permit is protective of wildlife, including endangered species, in accordance with the TSWQS in 30 TAC chapter 307.
13. The Draft Permit adequately addresses nuisance odor, in accordance with 30 TAC § 309.13(e).
14. A WWTP may not be located in a 100-year flood plain, unless the plant unit is protected from inundation and damage that may occur during that flood event, nor may a WWTP be located in a wetland. 30 Tex. Admin. Code § 309.13(a)-(b).
15. The Draft Permit complies with siting requirements regarding flood plains and wetlands, in accordance with 30 TAC chapter 309.
16. Applicant substantially complied with applicable public notice requirements.
17. Applicant adequately identified the operator in the application.

18. The Commission should not deny or alter the terms and conditions of the Draft Permit based on consideration of need, under TWC § 26.0282 and the general policy to promote regional or area-wide systems, under TWC § 26.081.
19. No transcript costs may be assessed against the ED or OPIC because the TCEQ's rules prohibit the assessment of any cost to a statutory party who is precluded by law from appealing any ruling, decision, or other act of the Commission. 30 TAC § 80.23(d)(2).
20. Factors to be considered in assessing transcript costs include: the party who requested the transcript; the financial ability of the party to pay the costs; the extent to which the party participated in the hearing; the relative benefits to the various parties of having a transcript; the budgetary constraints of a state or federal administrative agency participating in the proceeding; and any other factor which is relevant to a just and reasonable assessment of the costs. 30 TAC § 80.23(d)(1).
21. Considering the factors in 30 TAC § 80.23(d)(1), a reasonable assessment of hearing transcript costs against parties to the contested case proceeding is 50 percent to Applicant and 50 percent collectively to Protestants.

III. EXPLANATION OF CHANGES

The Commission adopted the ALJs' Proposed Order, as revised by the ALJs' letter dated June 24, 2025, accepting the Executive Director's recommended revision to Finding of Fact No. 2 to more accurately describe the discharge route.

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

1. Applicant's Application for TPDES Permit No. WQ0016171001 is granted as set forth in the Draft Permit.
2. Applicant must pay 50 percent of the reporting and transcription costs. Protestants (Greater Edwards Aquifer Alliance and the City of Grey Forest) must collectively pay 50 percent of the reporting and transcription costs.
3. The Commission adopts the ED's Response to Public Comment in accordance with 30 TAC § 50.117(f).
4. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied.
5. The effective date of this Order is the date the Order is final, as provided by Texas Government Code § 2001.144 and 30 TAC § 80.273.
6. TCEQ's Chief Clerk shall forward a copy of this Order to all parties.
7. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any provision shall not affect the validity of the remaining portions of this Order.

ISSUED:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

10/08/25 Brooke T. Paup

Brooke T. Paup, Chairwoman, For the Commission



TPDES PERMIT NO. WQ0016171001
[For TCEQ office use only - EPA I.D.
No. TX0142981]

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

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

Municipal Operations, LLC

whose mailing address is

P.O. Box 1689
Spring, Texas 77383

is authorized to treat and discharge wastes from the Guajolote Ranch Wastewater Treatment Facility, SIC Code 4952

located approximately 1.75 miles west-southwest of the intersection of Babcock Road and Scenic Loop Road, in Bexar County, Texas 78023

via pipe to Helotes Creek, thence to a pond, thence to Helotes Creek, thence to Culebra Creek, thence to Lower Leon Creek in Segment No. 1906 of the San Antonio River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **five years from the date of issuance**.

ISSUED DATE:

10/28/25

Brooke J. Paup
For the Commission

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the date of issuance and lasting through the date of completion of expansion to the 0.40 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.20 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 555 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (8.3)	10	20	30	One/week	Grab
Total Suspended Solids	5 (8.3)	10	20	30	One/week	Grab
Ammonia Nitrogen*	2 (3.3)	5	10	15	One/week	Grab
Total Phosphorus*	0.15 (0.25)	0.3	0.6	0.9	One/week	Grab
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	126	N/A	N/A	399	Five/week	Grab

* Effluent limitations and monitoring requirements apply only when discharging to water in the state.

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

1. During the period beginning upon the date of completion of expansion to the 0.40 million gallons per day (MGD) facility and lasting through the date of completion of expansion to the 1.0 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.40 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 1,111 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max.	Single Grab Measurement Frequency
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (17)	10	20	30	One/week	Grab
Total Suspended Solids	5 (17)	10	20	30	One/week	Grab
Ammonia Nitrogen*	2 (6.7)	5	10	15	One/week	Grab
Total Phosphorus*	0.15 (0.50)	0.3	0.6	0.9	One/week	Grab
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	126	N/A	N/A	399	Five/week	Grab

* Effluent limitations and monitoring requirements apply only when discharging to water in the state.

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001

- During the period beginning upon the date of completion of expansion to the 1.0 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 1.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 2,778 gallons per minute.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Measurement Frequency	Daily Avg. & Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (42)	10	20	30	Two/week	Composite
Total Suspended Solids	5 (42)	10	20	30	Two/week	Composite
Ammonia Nitrogen*	2 (17)	5	10	15	Two/week	Composite
Total Phosphorus*	0.15 (1.25)	0.3	0.6	0.9	Two/week	Composite
<i>E. coli</i> , colony-forming units or most probable number per 100 ml	126	N/A	399	N/A	Daily	Grab

- * Effluent limitations and monitoring requirements apply only when discharging to water in the state.
- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
- 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- 5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- 6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored twice per week by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements
 - a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.
 - b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
 - c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
 - d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
 - e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
 - f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.
2. Concentration Measurements
 - a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

- ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- 1. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

- b. Grab sample - an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
- 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
- 6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.
- 7. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to

be representative of the monitored activity.

- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement;
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later

than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2025, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after

becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 µg/L);
 - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 µg/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS**1. General**

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

- I. Violation of any terms or conditions of this permit;
- II. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- III. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions

established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

- iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
- IV. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

- 1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
- 2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.
- 3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
- 4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
- 5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

- a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been

secured.

- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
- 9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
- 10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
- 11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

- e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge or biosolids by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.
2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

1. Sewage sludge or biosolids shall be tested once during the term of this permit during Interim I and II phases, and annually during the Final phase, in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129)

of the Permitting and Registration Support Division and the Regional Director (MC Region 13) within seven (7) days after failing the TCLP Test. The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 13) and the Enforcement Division (MC 224) by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

2. Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

TABLE 1

<u>Pollutant</u>	<u>Ceiling Concentration</u> (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

- a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC §

312.82(a)(2)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

- b. For sewage sludge to be classified as Class AB biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

- c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

Alternative 1

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- o. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and
- v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 – 3, the following site restrictions must be met if Class B biosolids are land applied:

- i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.
- vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.
- viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.
- ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be

equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 -

The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

- i. Biosolids shall be injected below the surface of the land.
- ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.
- iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10 -

- i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
- ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test

- once during the term of this permit during Interim I and II phases, and annually during the Final phase.

PCBs

- once during the term of this permit during Interim I and II phases, and annually during the Final phase.

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

<u>Amount of biosolids (*) metric tons per 365-day period</u>	<u>Monitoring Frequency</u>
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter

1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) The amount of bulk biosolids applied to the land (dry wt. basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7.

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge or biosolids for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE OR BIOSOLIDS FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

1. Pollutant Limits

Table 2

<u>Pollutant</u>	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

<u>Pollutant</u>	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen

reduction requirements as defined above in Section I.B.3.

C. Management Practices

1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.
3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.
4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:
 - a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.
 - b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.
 - c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:
 - a. The location, by street address, and specific latitude and longitude, of each land application site.
 - b. The approximate time period bulk biosolids will be applied to the site.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.

E. Record Keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period of five years. If the permittee supplies the sludge to another person who land applies

the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).
3. A description of how the vector attraction reduction requirements are met.
4. A description of how the management practices listed above in Section II.C are being met.
5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:
 1. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
 - b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.
 - c. The number of acres in each site on which bulk biosolids are applied.
 - d. The date and time biosolids are applied to each site.
 - e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
 - f. The total amount of biosolids applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 13) and the Enforcement Division (MC 224), by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.
3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
4. The frequency of monitoring listed in Section I.C. that applies to the permittee.
5. Toxicity Characteristic Leaching Procedure (TCLP) results.
6. PCB concentration in sludge or biosolids in mg/kg.
7. Identity of hauler(s) and TCEQ transporter number.
8. Date(s) of transport.
9. Texas Commission on Environmental Quality registration number, if applicable.
10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.
11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
12. Level of pathogen reduction achieved (Class A, Class AB or Class B).
13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.
14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

15. Vector attraction reduction alternative used as listed in Section I.B.4.
16. Amount of sludge or biosolids transported in dry tons/year.
17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.
18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
 - a. The location, by street address, and specific latitude and longitude.
 - b. The number of acres in each site on which bulk biosolids are applied.
 - c. The date and time bulk biosolids are applied to each site.
 - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.
 - e. The amount of biosolids (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge or biosolids disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 13) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 13) and the Enforcement Division (MC 224) by September 30 of each year.

- D. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- E. Record Keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
- F. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 13) and the Enforcement Division (MC 224) by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
2. Toxicity Characteristic Leaching Procedure (TCLP) results.
3. Annual sludge or biosolids production in dry tons/year.
4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.
5. Amount of sludge or biosolids transported interstate in dry tons/year.
6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
7. Identity of hauler(s) and transporter registration number.
8. Owner of disposal site(s).
9. Location of disposal site(s).
10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

**SECTION IV. REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS
TRANSPORTED TO ANOTHER FACILITY FOR FURTHER
PROCESSING**

These provisions apply to sludge or biosolids that is transported to another wastewater treatment facility or facility that further processes sludge or biosolids. These provisions are intended to allow transport of sludge or biosolids to facilities that have been authorized to accept sludge or biosolids. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge or biosolids, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.
2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:
 - a. the amount of sludge or biosolids transported;
 - b. the date of transport;
 - c. the name and TCEQ permit number of the receiving facility or facilities;
 - d. the location of the receiving facility or facilities;
 - e. the name and TCEQ permit number of the facility that generated the waste; and
 - f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.
2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.
3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 13) and the Enforcement Division (MC 224), by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
2. the annual sludge or biosolids production;
3. the amount of sludge or biosolids transported;
4. the owner of each receiving facility;
5. the location of each receiving facility; and
6. the date(s) of disposal at each receiving facility.

OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category C facility during the Interim I and II phases, and category B facility during the Final phase must be operated by a chief operator or an operator holding a Class C license or higher during the Interim I and II phases, and Class B license or higher during the Final phase. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.
3. There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.
4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, five/week may be reduced to three/week in the Interim I and Interim II phases, and daily may be reduced to five/week in the Final phase. **A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.

7. Prior to construction of the treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the effluent limitations required on Pages 2, 2a, and 2b of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.
8. Within 120 days from the start-up of the facility, the permittee shall complete Attachment A with the analytical results for Outfall 001. The completed tables with the results of these analysis and laboratory reports shall be submitted to the Municipal Permits Team, Wastewater Permitting Section MC 148, TCEQ Water Quality Division. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements. Test methods utilized to complete the tables shall be according to the test procedures specified in the Definitions and Standard Permit Conditions section of this permit and sensitive enough to detect the parameters listed in Attachment A at the minimum analytical level (MAL).
9. Reporting requirements according to 30 TAC §§ 319.1-319.11 and any additional effluent reporting requirements contained in this permit are suspended from the effective date of the permit until plant startup or discharge from the facility described by this permit, whichever occurs first. The permittee shall provide written notice to the TCEQ Regional Office (MC Region 13) and the Applications Review and Processing Team (MC 148) of the Water Quality Division, in writing at least forty-five days prior to plant startup or anticipated discharge, whichever occurs first, and prior to completion of each additional phase on Notification of Completion Form 20007.

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.
- b. Within 90 days of initial discharge of the 1.0 MGD facility, the permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:
 - 1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.
 - 2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted occurs per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, chemical-specific effluent limits, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.
- e. Testing Frequency Reduction
 - 1) If none of the first four consecutive quarterly tests demonstrates

significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

- 2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:
 - 1) a control mean survival of 80% or greater;
 - 2) a control mean number of water flea neonates per surviving adult of 15 or greater;
 - 3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;
 - 4) a control coefficient of variation percent (CV%) of 40 or less between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
 - 5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
 - 6) a percent minimum significant difference of 47 or less for water flea reproduction; and
 - 7) a percent minimum significant difference of 30 or less for fathead minnow growth.
- b. Statistical Interpretation
 - 1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in Part 1.b.
 - 2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent

dilution shall be in accordance with the manual referenced in Part 1.b.

- 3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
- 4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.
- 5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).
- 6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.
- 7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.
- 8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

- 1) Dilution water used in the toxicity tests must be the receiving water collected as close as possible to the point of discharge into the lake but unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable

receiving water test met the following stipulations:

- a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
- b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and
- c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

- 3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

- 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
- 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.
- 5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC

150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter TOP3B, report the NOEC for survival.
 - 3) For the water flea, Parameter TXP3B, report the LOEC for survival.
 - 4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."
 - 5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.
 - 6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.
 - 7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.
 - 9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.
 - 10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
 - 11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.

- 12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this part apply only when a test demonstrates a significant effect at the critical dilution. Significant effect and significant lethality were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction of the test organism in the control.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall

submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. As a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
 - 4) Project Organization - The TRE action plan should describe the project

staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the

effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.
- h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, to require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and a specify chemical-specific limit.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected	Date No. 1 FROM: _____	Time TO: _____	Date No. 2 FROM: _____	Time TO: _____

No. 3 FROM: _____	TO: _____
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Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving Water _____ Synthetic Dilution Water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

	Percent effluent (%)					
REP	0%	32%	42%	56%	75%	100%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults) Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (100%): YES NO

PERCENT SURVIVAL

Time of Reading	Percent effluent					
	0%	32%	42%	56%	75%	100%
24h						
48h						
End of Test						

2. Fisher's Exact Test:

Is the mean survival at test end significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (100%): YES NO

3. Enter percent effluent corresponding to each NOEC/LOEC below:

a.) NOEC survival = % effluent
 b.) LOEC survival = % effluent
 c.) NOEC reproduction = % effluent
 d.) LOEC reproduction = % effluent

TABLE 1 (SHEET 3 OF 4)
BIOMONITORING REPORTING
FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times Composites Collected	No. 1 FROM: _____	Date _____ Time _____	TO: _____	Date _____ Time _____
	No. 2 FROM: _____	TO: _____		
	No. 3 FROM: _____	TO: _____		
Test initiated:	_____	am/pm	_____	date
Dilution water used:	Receiving Water	Synthetic Dilution Water		

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in milligrams in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
32%							
42%							
56%							
75%							
100%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (100%): YES NO

TABLE 1 (SHEET 4 OF 4)
BIOMONITORING REPORTING
FATHEAD MINNOW GROWTH AND SURVIVAL TEST
FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
32%									
42%									
56%									
75%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean survival at 7 days significantly less ($p=0.05$) than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (100%): YES NO

3. Enter percent effluent corresponding to each NOEC/LOEC below:

a.) NOEC survival = % effluent

b.) LOEC survival = % effluent

c.) NOEC growth = % effluent

d.) LOEC growth = % effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- b. Within 90 days of initial discharge of the 1.0 MGD facility, the toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
 - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit. All test results, valid or invalid, must be submitted as described below.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

- a. Test Acceptance – The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water - In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

c. Samples and Composites

- 1) The permittee shall collect one composite sample from Outfall 001.
- 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
- 5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

- 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration after 24 hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in item 1.b. As a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities - The TRE action plan shall specify the approach the

permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization - The TRE action plan should describe the project staff, manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE Activities Reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

- 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
- 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.

- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

1. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementing corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN*						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____ % effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____ % effluent

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required **minor amendments without renewal**.

Section 1. Toxic Pollutants (Instructions Page 78)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab Composite

Date and time sample(s) collected: [Click to enter text.](#)

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
Cadmium				1
Carbon Tetrachloride				2

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) (*1)				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
Dichloromethane				20

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

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Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab Composite

Date and time sample(s) collected: [Click to enter text](#).

Table 4.0(2)A – Metals, Cyanide, and Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide (*2)				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

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Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

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Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10

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Pollutant	AVG Effluent Conc. ($\mu\text{g/l}$)	MAX Effluent Conc. ($\mu\text{g/l}$)	Number of Samples	MAL ($\mu\text{g/l}$)
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

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Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (μg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4,-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a "<".

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Section 3. Dioxin/Furan Compounds

Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

- 2,4,5-trichlorophenoxy acetic acid
Common Name 2,4,5-T, CASRN 93-76-5
- 2-(2,4,5-trichlorophenoxy) propanoic acid
Common Name Silvex or 2,4,5-TP, CASRN 93-72-1
- 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate
Common Name Erbon, CASRN 136-25-4
- o,o-dimethyl o-(2,4,5-trichlorophenyl) phosphorothioate
Common Name Ronnel, CASRN 299-84-3
- 2,4,5-trichlorophenol
Common Name TCP, CASRN 95-95-4
- hexachlorophene
Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

Click to enter text

A. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

Yes No

If yes, provide a brief description of the conditions for its presence.

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[Click to enter text.](#)

B. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab Composite

Date and time sample(s) collected: [Click to enter text.](#)

Table 4.0(2)F – Dioxin/Furan Compounds

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalent (ppq)	Sludge Concentration (ppt)	Sludge Equivalent (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

EXHIBIT B

**SOAH DOCKET NO. 582-25-01778
TCEQ DOCKET NO. 2024-0670-MWD**

**APPLICATION BY MUNICIPAL § BEFORE THE STATE OFFICE
OPERATIONS, LLC FOR NEW TEXAS §
POLLUTANT DISCHARGE § OF
ELIMINATION SYSTEM PERMIT NO. §
WQ0016171001 § ADMINISTRATIVE HEARINGS**

ALIGNED PROTESTANTS' MOTION FOR REHEARING

TO THE HONORABLE COMMISSIONERS:

Protestants Greater Edwards Aquifer Alliance (“GEAA”) and the City of Grey Forest (collectively, “Aligned Protestants”) hereby submit this Motion for Rehearing of the Commission’s October 28, 2025 Final Order granting the Application by Municipal Operations, LLC (“Applicant” or “Municipal Operations”) for Texas Pollutant Discharge Elimination System (“TPDES”) Permit No. WQ0016171001 (hereinafter, the “Application”). Aligned Protestants move that the Commission set Municipal Operations’ Application for rehearing and, upon rehearing, deny Municipal Operations’ Application. For support, Aligned Protestants respectfully offer the following:

I. Introduction

On May 23, 2022, Municipal Operations filed its Application for TPDES Permit No. WQ0016171001 with the Texas Commission on Environmental Quality to authorize the discharge of treated wastewater at a volume of 1,000,000 gallons per day (mgd) from a domestic wastewater treatment facility (the “Facility”) in Bexar County, Texas. The Executive Director (“ED”) determined the Application to be administratively complete on August 30, 2022. On November 16, 2022, the ED declared that the Application was

technically complete and issued a draft permit. On August 14, 2024, the Commission granted Aligned Protestants' requests for a contested case hearing and referred the Application to the State Office of Administrative Hearings ("SOAH").¹

A preliminary hearing took place on November 21, 2024, via Zoom videoconference. A hearing on the merits took place from February 18 – 20, 2025, and the record closed on March 21, 2025. The ALJs provided their Proposal for Decision on May 19, 2025.

On October 22, 2025, the Commission convened a public meeting during which it voted to grant the Application and issue the TPDES Permit to Municipal Operations. The Commission's Order was signed on October 28, 2025, memorializing the decision and issuing the Permit to Municipal Operations.

Aligned Protestants urge the Commission to grant this Motion, reverse its previous decision, and deny the Permit for the reasons stated herein.

II. Summary

TCEQ's Final Order in this matter improperly allocated the burden of proof to the Aligned Protestants on many issues, and erred in granting Municipal Operations' requested permit. Perhaps most glaringly, the Final Order is premised upon a finding that Helotes Creek is not fishable/swimmable, despite the fact that the residents of Grey Forest,

¹ Finding of Fact 22 in the Commission's Final Order is erroneous in stating that the hearing requests were granted on August 4, 2024. FOF 22 is not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole. As discussed herein, this is hardly the only erroneous FOF in the Final Order.

including many who participated in this proceeding, frequently fish and swim within Helotes Creek.

The Commission's dissolved oxygen ("DO") analysis is flawed for multiple reasons. The Commission's conclusions relating to DO are premised upon conclusory opinions which lack any basis in the data relied upon, and are thus not probative on the issue. Furthermore, even if the data and opinions relied upon were true (which they are not), TCEQ has used findings relied upon predictions of DO that are below the applicable criteria as if they meet or exceed the applicable criteria, which amounts to an improper alteration of the criteria set forth by rule.

As to water quality concerns that go beyond compliance with DO criteria, TCEQ has failed to recognize the high aquatic life uses of Helotes Creek through the City of Grey



Forest, and has failed to account for the fishable swimmable nature of Helotes Creek. According to TCEQ, Kerry McEntire accomplished the impossible by catching a fish in Helotes Creek, since it is absolutely *not* fishable/swimmable.²

² Ex. GEAA-601; *see* COL 8, 11 & 12, finding water quality standard to be met premised upon finding that Helotes Creek cannot attain fishable/swimmable uses.

The Commission further violated its own rules requiring consideration of toxicity by refusing to consider the potential impacts of per- and polyfluoroalkyl substances (PFAS) despite their clear toxicity, as illustrated by the suit filed by the Texas Attorney General against 3M taking the position that it would be deceptive to claim that PFAS are not toxic. In this case, the Commission applied, as if it were binding in all cases, a general policy of that the consideration of PFAS is irrelevant to its water quality permitting toxicity regulations.

The Commission further erred in violating its own rules relating to the specific protection of wildlife. The Commission did so by improperly disregarding the possibility that karst invertebrates could be present in areas proximate to the discharge route, and failing to perform the case-specific review required to address endangered species.

The Commission also committed several errors in relation to the protection of groundwater. The Commission improperly applied in a binding manner, as if it were a rule, a policy that compliance with the Texas Surface Water Quality Standards (TSWQS) necessarily protects groundwater. Additionally, the Commission improperly failed to protect the quality of water in the Upper Trinity Aquifer, improperly placed the burden upon Aligned Protestants to demonstrate that their wells were located in the Upper Trinity Aquifer, and improperly placed the burden upon Aligned Protestants to demonstrate a migration pathway for contaminants. Due to the nature of the TSWQS, the Draft Permit contains no limit on the amount of nitrate which may be discharged. Yet, nitrate is a parameter of key concern in the groundwater context. Thus, mere reliance upon the TSWQS is inadequate to protect groundwater.

For these reasons, and others set forth below, the Commission should reconsider its grant of the Permit, and upon rehearing, the Commission should deny the Permit.

III. The Commission’s Order violates Commission rules relating to dissolved oxygen.

The Applicant failed to demonstrate that its requested TPDES Permit would comply with the Texas Surface Water Quality Standards (“TSWQS”) for dissolved oxygen, and the Commission erred in granting the Applicant’s TPDES Permit despite a failure to demonstrate that the DO criteria would be met. Because the Commission failed to enforce an unambiguous numeric regulatory requirement—by utilizing an unapproved 0.20 mg/L “margin of safety” and failing to establish that the QUAL-TX model was reliable *in this instance*—the Commission’s findings and conclusions regarding this issue are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion. The Commission’s refusal to enforce its own rules and statutory mandates was an abuse of its discretion. Among the findings of fact (“FOF”) and conclusions of law (“COL”) that are in error are: FOF 41, 42 and 43 and COL 11.

A. The TSWQS impose mandatory numeric criteria for DO.

Texas Surface Water Quality Standards for DO are one of the few standards with numeric criteria. There are, for example, no numeric criteria in the TSWQS for 5-day

biochemical oxygen demand (BOD5), 5-day carbonaceous biochemical oxygen demand (CBOD5), or ammonia-nitrogen (NH3-N). However, the results of running the QUAL-TX model supposedly instruct TCEQ staff as to the proposed effluent limits for these narrative criteria in order to maintain requisite numeric DO levels.³ DO concentrations must be sufficient to support existing, designated, presumed, and attainable aquatic life uses. 30 Tex. Admin. Code § 307.4(h)(1). Setting aside whether the aquatic life uses (and their corresponding DO criteria) were properly assigned in Helotes Creek downstream of the outfall (they were not, and that issue is addressed below), the QUAL-TX model used by both the Applicant and ED predicts that DO will drop to 2.9 mg/L in the first pond approximately 0.15 miles downstream of the proposed outfall. This number is below the DO criteria of 3.0 mg/L at this location, which was set by the ED pursuant to the limited aquatic life use designation. This is openly not in conformance with the plain language of the TSWQS and Implementation Procedures (“IPs”), which are approved by the United States Environmental Protection Agency (EPA) and are mandatory standards.

Though the QUAL-TX model is approved by EPA for use by TCEQ when reviewing domestic TPDES applications, there is nothing in the Memorandum of Agreement or in the IPs that indicate EPA has approved the deviation from the numeric TSWQS. Said another way, the Commission does not have the discretion to deviate from the numeric TSWQS, yet that is what the Commission has done.

³ See Ex. ED-XL-1 at 7:15-19 (Lu Direct).

None of the Commission's findings of fact, including FOF 41 (finding the ED's standard practice is to consider a DO criterion to be met if the QUAL-TX model predicts a DO concentration within 0.2 mg/L of the assigned criterion), provide support for the conclusion that the proposed TPDES permit will comply with the TSWQS. Furthermore, FOF 42 (finding that the DO modeling prediction that the minimum DO concentrations will be met or exceeded for all water bodies) and FOF 43 (finding that the DO modeling complied with applicable regulations to ensure the permit would be protective of water quality) are in error because there is no support in the record. It is undisputed that the ED applied a minimum DO concentration criteria of 3.0 mg/L at the location of the first pond, and both the Applicant and ED predict that DO will drop to 2.9 mg/L at this location. Findings should be stated as the agency's findings and should relate to material basic facts. *Tex. Health Facilities Comm'n v. Charter Med.—Dallas, Inc.*, 665 S.W.2d 446, 451 (Tex. 1984). And they should resolve legitimate factual disagreements. *Id.*; Tex. Gov't Code § 2001.141. Thus, it is not enough to simply find that the requisite DO criterion in the TSWQS will be met.

Even if these findings of fact are interpreted as conclusions of law, the Commission's Final Order does not include findings of fact to support the conclusion that the DO modeling predicts that the DO criterion will be met or exceeded for all water bodies in the discharge route (FOF 42) or that the modeling complied with applicable regulations (FOF 43). Nor does the Commission's Final Order include findings to support COL 8 (finding that the *prima facie* presumption was not rebutted), nor COL 11 (concluding that

the effluent limits in the Draft Permit will comply with the TSWQS in 30 TAC Chapter 307).

“Substantial-evidence analysis entails two component inquiries: (1) whether the agency made findings of underlying facts that logically support the ultimate facts and legal conclusions establishing the legal authority for the agency’s decision or action and, in turn, (2) whether the findings of underlying fact are reasonably supported by evidence.” *HMW Special Util. Dist. v. Pub. Util. Comm’n*, No. 03-21-00234-CV, 2023 WL 2191329 at *3 (Tex. App.—Austin Feb. 24, 2023, pet. denied) (mem. op.) (quoting *AEP Tex. Commercial & Indus. Retail, Ltd. P’ship v. Public Util. Comm’n of Tex.*, 436 S.W.3d 890, 905 (Tex. App.—Austin 2014, no pet.)). The Commission’s Final Order fails to satisfy both of these two components with regard to the DO criteria in TSWQS.

Due to the Commission’s failure to comply with its own rules creating a dissolved oxygen criteria of 3.0 mg/L within the first pond downstream of the discharge, FOF 41, 42 and 43 and COL 8, 10, 11 and 12 in the Commission’s Final Order are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

B. The undisputed evidence in the record establishes that the Applicant failed to verify that the QUAL-TX modeling results were reliable in this instance.

The IPs direct TCEQ to use site-specific hydraulic information “if it is available and of acceptable quality.”⁴ Upon judicial review of TCEQ decisions relating to water quality permitting, conformance with the IPs is an important consideration. *Save Our Springs All, Inc. v. Tex. Comm’n on Env’tl. Quality*, 713 S.W.3d 308, 321 (Tex. 2025) (“[T]he main issue turns on the proper construction and application of the antidegradation standards in 30 Texas Administrative Code section 307.5 and corresponding *implementation procedures*.” (emphasis added)). The explicit language of the rules and IPs is important, as a court will only defer to an agency’s interpretation of its rule if the rule is ambiguous. *Wal-Mart Stores, Inc. v. Xerox State & Local Solutions, Inc.*, 663 S.W.3d 569, 581 (Tex. 2023). The IPs do not instruct TCEQ to omit site-specific information from its consideration of DO simply because that site-specific information is not provided with the application or because not enough site-specific information is readily available to calibrate every parameter in the model. In fact, the evidentiary record shows that the TCEQ’s General Guidance document for the modeling review actually instructs the modeler to look for pertinent information, which could include “site specific hydraulic data, or additional maps that portray the area, or comments on inspection reports that may describe the receiving waters, etc.”⁵ TCEQ has not only failed to consider site-specific information, the agency has actually *refused* to consider site-specific information that was available for the reason that they would need

⁴ Ex. ED-ML-6 at 0108.

⁵ Ex. ED-XL-6 at 0502.

“all the information.”⁶ But there is no support in the IPs and EPA-approved documents for this approach.

Ultimately, witnesses for both the Applicant and the ED acknowledge that the uncalibrated QUAL-TX model does not accurately predict the concentration of DO that will be maintained in Helotes Creek. Still, neither the witness for the Applicant nor the ED attempted to verify whether the QUAL-TX modeling results were nevertheless reliable in order to predict that the concentration of DO would never fall below the requisite DO criteria. Thus, the evidence establishes that there is a reasonable potential that the discharge will result in a violation of the water quality standards, namely the numeric DO criteria. There is no evidence in the record to support the affirmative determination that the Applicant ensured that the DO criteria would be met.

Relatedly, the Commission’s Final Order does not include any findings of fact to support a conclusion that the DO criteria in Helotes Creek will be met. Finding of Fact 39 is made up of two findings. First, FOF 39 finds that in the absence of adequate site-specific width, depth, flow, and velocity data for the receiving water body, the ED uses standardized hydraulic coefficient assumptions downstream. This may be so, but this finding alone does not support a conclusion that the DO criteria in Helotes Creek will be met.

Second, FOF 39 finds that these “assumptions have been shown to be representative of Texas streams and have been approved by TCEQ and the EPA.” The IPs, which are approved by TCEQ and EPA, do not support this finding. The IPs plainly state that the

⁶ Tr. Vol. 3 at 123:7-19 (Lu Cross).

“equations using data collected during studies performed throughout the state, and the coefficients represent the *median values* from those data.”⁷ While some default rates may be “representative,” the stream hydraulic information is explicitly developed using *median* values. By definition, there will be streams in Texas with hydraulic characteristics having values on both sides of the median value. Therefore, TCEQ’s analysis cannot end there. But that is where it ends in the Commission’s Final Order.

In order to support the conclusion of law (COL 11) that the proposed discharge will achieve the minimum DO concentrations in compliance with the TSWQS in Chapter 307, the Commission would have needed to go further. The Commission must find that the actual hydraulic characteristics relied upon were representative of Helotes Creek (the evidence shows they were not) or that the results of using the default hydraulic characteristics were verified, nevertheless. A matter is not true merely because an expert says it is so. *Gammill v. Jack Williams Chevrolet, Inc.* 972 S.W.2d 713, 726 (Tex. 1998). Rather, where the analytical gap between the data and the opinion offered is simply too great, then an expert opinion is not reliable. *Id.* Bare, baseless opinions will not support a judgment even if there is no objection to their admission in evidence. *City of San Antonio v. Pollock*, 284 S.W.3d 809, 816 (Tex. 2009). Even when a basis is offered for an opinion, if that basis does not, on its face, support the opinion, the opinion is still conclusory. *Id.*

All parties agree that the default hydraulic characteristics were not representative of Helotes Creek. They represented statewide medians, rather than accurate characterizations

⁷ Ex. ED-ML-6 at 0108.

of Helotes Creek. The Final Order asserts that “these assumptions have been shown to be representative of Texas streams and have been approved by TCEQ and EPA.”⁸ But, there is no data showing that these assumptions are representative of *Helotes Creek* – the necessary showing in this case for the modeling results to be probative. Under these circumstances, it was incumbent on the Applicant to take the second step of verifying that the QUAL-TX modeling results were in fact reliable to provide accurate results *for Helotes Creek*. Because the Applicant did not perform this second step, there is no conclusion or factual finding that indicates how the Applicant’s evidence demonstrated compliance with the requirement to ensure DO criteria will be met. The analytical gap between this statewide data and the highly-specific conclusions as to the DO in Helotes Creek (*to the nearest tenth of a mg/L*) is so great that the opinions offered regarding the exact DO to be anticipated in Helotes Creek are simply conclusory, and cannot support a factual finding that the DO standards have been met. Of course, an agency cannot justify reliance upon conclusory opinions merely by adopting a standard practice of relying on conclusory opinions.

In sum, the Applicant had the burden of proof. The Commission’s failure to require the Applicant to meet its burden with regard to DO is arbitrary and capricious, an abuse of discretion, in violation of a statutory provision, in excess of its statutory authority, and violated the due process rights of the Aligned Protestants.

⁸ Final Order at FOF 39.

Due to the Commission's refusal to consider site-specific discharge route information (contrary to the Commission's IPs), and reliance on conclusory expert opinions to find and conclude that the DO criteria had been met, FOF 39, 40, 41, 42 and 43, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

IV. The Commission's Final Order also violates the Texas Surface Water Quality Standards for parameters other than dissolved oxygen.

A. When complied with, the Texas Surface Water Quality Standards (embodied at Chapter 307 of the TCEQ rules) protect existing uses, prevent degradation of water quality, and prevent toxic discharges.

TCEQ has a responsibility to ensure that each TPDES permit issued contains conditions sufficient to protect the TSWQS under Texas Water Code Chapter 26.

National Pollutant Discharge Elimination System (NPDES) permits are issued pursuant to authority delegated to the State of Texas by the EPA. For such a permit, TCEQ's regulations at 30 Tex. Admin. Code § 305.531(4) incorporate the federal regulations of 40 C.F.R. § 122.44. That incorporated regulation requires that each NPDES permit incorporate any requirements necessary to achieve the state's water quality standards. 40 C.F.R. § 122.44(d).

The TSWQS applicable to this permit include the Tier 1 anti-degradation review (30 Tex. Admin. Code § 307.5(b)(1)), Tier 2 anti-degradation review (30 Tex. Admin. Code § 307.5(b)(2)), the general criteria of the TSWQS (30 Tex. Admin. Code § 307.4) (which include prohibitions on excessive algal growth and require that surface waters be maintained in an aesthetically attractive condition), and the toxicity prohibitions of the TSWQS (30 Tex. Admin. Code § 307.6(b)(2),(4)).

1. Tier 1 Anti-degradation Review (Protection of Attainable Uses).

The Tier 1 anti-degradation review of 30 Tex. Admin. Code § 307.5(b)(1) requires that a draft permit maintain existing uses and water quality sufficient to maintain those existing uses. For purposes of this regulation, “existing uses” includes more than just the uses that the waters are capable of attaining in their current state. Rather, “existing uses” includes, “a use that is currently being supported by a specific water body or that was attained on or after November 28, 1975.” 30 Tex. Admin. Code § 307.3(27). Thus, even if a water body has been degraded over time such that a previously attainable use is no longer supported by the actual conditions of the receiving waters, the permit must include conditions that will ensure achievement of that historically higher use.

2. Tier 2 Anti-degradation Review (Protection Against Degradation).

The Tier 2 anti-degradation review is intended to ensure that the protection of existing uses, required by Tier 1, does not become a floor to which all waters in the State sink. Thus, the Tier 2 review seeks to ensure that any degradation of high-quality waters is

specifically justified as necessary. In particular, 30 Tex. Admin. Code § 307.5(b)(2) provides that:

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 water quality is necessary for important economic or social development. Degradation is defined as a lowering of water quality by more than a *de minimis* extent, but not to the extent that an existing use is impaired. Water quality sufficient to protect existing uses must be maintained. Fishable/swimmable waters are defined as waters that have quality sufficient to support propagation of indigenous fish, shellfish, terrestrial life, and recreation in and on the water.

Municipal Operations' proposed discharge would flow into Helotes Creek and then into Lower Leon Creek, Segment 1906 of the San Antonio River Basin, the first downstream classified receiving water. TCEQ Rule 307.10(1) has designated high aquatic life uses, primary contact recreation, and public water supply for Segment 1906. 30 Tex. Admin. Code § 307.10(1). Accordingly, the receiving waters of Lower Leon Creek are "fishable/swimmable," and subject to the requirements of a Tier 2 review. As discussed further below, the waters of Helotes Creek were also demonstrated to be fishable/swimmable.

3. General Criteria

The TSWQS at 30 Tex. Admin. Code § 307.4 also establish several general criteria for surface waters, including both narrative criteria and numeric criteria. These criteria apply to all surface water in the State and specifically apply to substances related to waste discharges or human activity. 30 Tex. Admin. Code § 307.4(a).

Among these general criteria, nutrients from permitted discharges "must not cause excessive growth of aquatic vegetation that impairs an existing, designated, presumed or

attainable use.” 30 Tex. Admin. Code § 307.4(e). In addition, surface waters must not be toxic to humans or terrestrial or aquatic life. 30 Tex. Admin. Code § 307.4(d). Moreover, surface waters must be “maintained in an aesthetically attractive condition.” 30 Tex. Admin. Code § 307.4(b)(4). These general criteria also require dissolved oxygen concentrations sufficient to support existing, designated, and presumed aquatic life uses, which are determined further in 30 Tex. Admin. Code § 307.7. 30 Tex. Admin. Code § 307.4(h).

4. Specific Toxic Prohibitions

In addition to the prohibition on toxicity set forth in the general criteria, the TSWQS further specifically provide that water in the State subject to aquatic life use must not be chronically toxic to aquatic life. 30 Tex. Admin. Code § 307.6(b)(2). This rule also requires that water in the State must be maintained to preclude adverse toxic effects on aquatic life or terrestrial life. 30 Tex. Admin. Code § 307.6(b)(4).

B. The Commission’s Final Order violates the Tier 1 anti-degradation protections of the TSWQS at 30 Tex. Admin. Code § 307.5(b)(1).

1. TCEQ erred in failing to recognize the high aquatic life uses of downstream portions of Helotes Creek.

TCEQ determined that Helotes Creek within Guajolote Ranch had minimal aquatic life use in Helotes Creek upstream of the unnamed tributary on the facility site, and limited aquatic life uses downstream from that point throughout the City of Grey Forest to the confluence of Helotes Creek with Lower Leon Creek/Segment 1906.⁹ This demonstrated

⁹ Final Order at FOF 36.

the Commission’s ability to separate water bodies into separate uses for separate portions of a water body.

But the Commission’s designation of the entirety of Helotes Creek downstream of as subject to only limited aquatic life use was in error. TCEQ’s Implementation Procedures note that “Unclassified intermittent streams with perennial pools are presumed to have a limited aquatic life use and corresponding dissolved oxygen criterion.”¹⁰ “Higher uses will be maintained where they are attainable.”¹¹ Water bodies with “limited” aquatic life uses are characterized by uniform habitat characteristics, with most regionally expected species absent, a low diversity of species, and a low species richness.¹² Helotes Creek demonstrates an abundance of species present – ranging from spotted bass, to crayfish, to sun perch, to multiple species of turtles, along with frogs.¹³



Red Eared Baby Slider Turtle near Helotes Creek¹⁴

¹⁰ Ex. ED-ML-6 at 0039 (Table 1) – 0040.

¹¹ *Id.* at 0040.

¹² *Id.* at 0039.

¹³ Ex. GEAA-600, 601, 602, 605, 606, 607, 608 & 610.

¹⁴ Ex. GEAA-607.



Crayfish caught in Helotes Creek¹⁵



Spiny Softshell Turtle near Helotes Creek¹⁶

¹⁵ Ex. GEAA-607.

¹⁶ Ex. GEAA-610.



Rio Grande Leopard Frog near Helotes Creek¹⁷

Considering this richness of species, Helotes Creek through the City of Grey Forest should not have been categorized as subject to limited aquatic life use. Helotes Creek should have been evaluated as subject to the high aquatic life uses that exist within that waterbody. Due to the Commission's failure to recognize the high aquatic life uses of Helotes Creek, FOF 36, 37, 49 and 67 and COL 8, 10, 11 and 12 in the Commission's Final Order are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

¹⁷ Ex. GEAA-608.

2. TCEQ erred in failing to protect the high aquatic life uses of Helotes Creek in light of the impacts of excessive algal growth.

Dr. Lauren Ross explained how the proposed discharge could result in excessive algal growth when considering the similarities of the proposed discharge and the receiving waters to other discharges where problems have occurred.

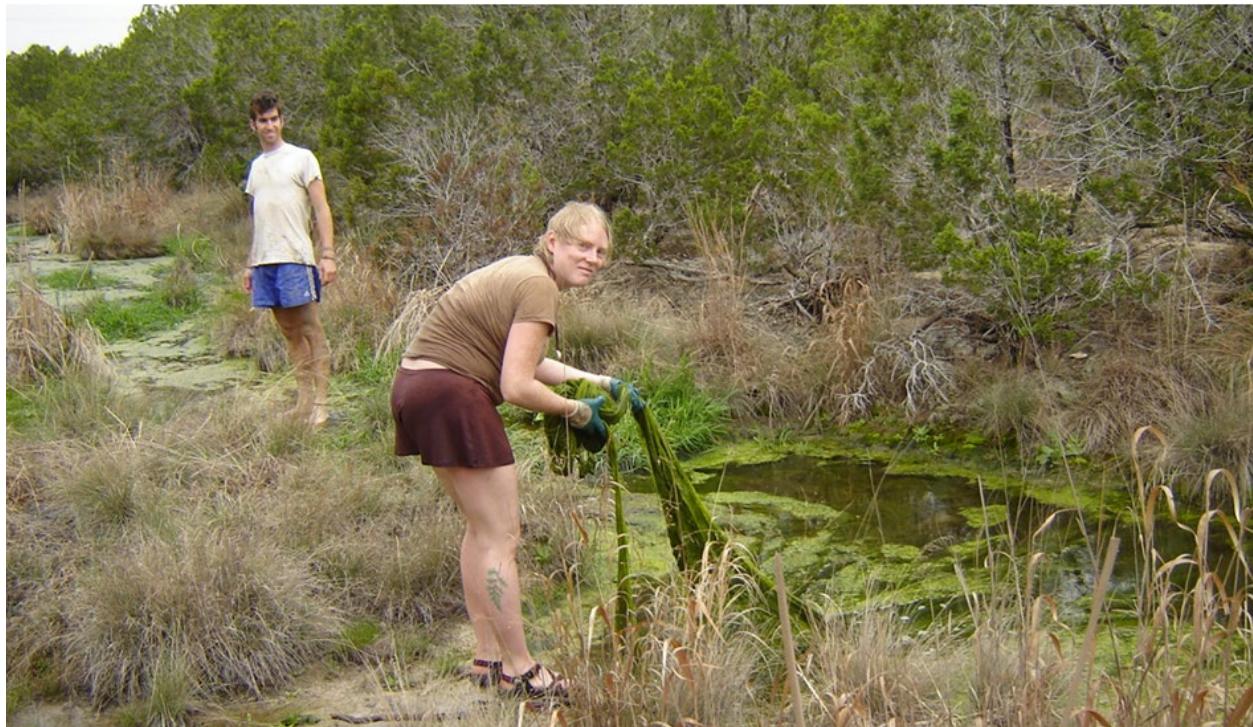
The condition of the Lower San Gabriel River downstream of the City of Liberty Hill's wastewater discharge demonstrates the impact of a municipal wastewater discharge on algal growth in a similar Texas Hill Country stream:



Photograph DSCN1192 by Dr. Lauren Ross of the South Fork of the San Gabriel River Downstream from the City of Liberty Hill Municipal Wastewater Discharge taken on August 5, 2020.¹⁸

¹⁸ Ex. GEAA-112 at 1.

East Lick Creek downstream of the discharge of the West Cypress Hills subdivision is another similar Texas Hill Country stream that has also experienced excessive algal growth in response to the introduction of municipal wastewater:



Photograph DSC00989 by Dr. Lauren Ross of East Fork of Lick Creek downstream from West Cypress Hills Discharge taken on May 25, 2018.¹⁹

Dr. Ross, who has extensive experience analyzing water quality in these Texas Hill Country streams, testified that both the Lower San Gabriel River and East Lick Creek are similar to Helotes Creek and Lower Leon Creek because these waters are all characterized by flat, limestone streambeds and relatively shallow waters that receive adequate sunlight to encourage algal growth.²⁰

¹⁹ Ex. GEAA-112 at 2.

²⁰ Tr. Vol. 1 at 138:16 – 140:5.

During the hearing on the merits, Applicant's biologist Paul Price called into question whether these Texas Hill Country streams are comparable and whether the receiving waters downstream of Municipal Operations' proposed discharge would experience similarly excessive algal growth. Particularly, Dr. Price questioned whether excessive algal growth could occur in areas of Helotes Creek experiencing little to no streamflow.²¹ Dr. Price did recognize that, similar to the Lower San Gabriel River, Helotes Creek is characterized by large boulders, which have a tendency to cause algal plugs.²² He further admitted that these large boulders could trap patches of algae in the impounded areas of Helotes Creek. He simply did not think that the Commission should care about such algal growth:

Q: And so **would your testimony be that . . . putting aside the dry areas . . . that **there wouldn't be significant algal growth** in those areas similar to the picture we're looking at [in the Lower San Gabriel River]?**

A: There probably will be some that you could see, whoa, there's a patch of algae, as you walk by the stream. But so what? It's a natural—it's a natural thing to happen.²³

However, Dr. Price did *not* explain why—if large algal patches are “natural” in Texas Hill Country streams—the current natural conditions of Helotes Creek and Lower Leon Creek are clear with no signs of excessive algal blooms, even in impounded areas. Dr. Price also failed to challenge that such conditions are *not* natural where phosphorus

²¹ Tr. Vol. 2 at 159:3-16.

²² *Id.*

²³ *Id.* at 159:17-25.

levels are as low as they are under current natural conditions within Helotes Creek, as Dr. Ross testified.²⁴

Dr. Price did, however, admit that the excessive algal blooms in the Lower San Gabriel River and East Lick Creek would *not* be considered “aesthetically pleasing” by the general public.²⁵ He testified that *he* would consider the conditions depicted in the above pictures of Helotes Creek downstream of the proposed discharge to be “aesthetically pleasing.”²⁶ He further testified that the general public would not want to wade or swim in the depicted algal conditions in the Lower San Gabriel River and East Lick Creek—in fact, he said his grandchildren would likely not want to swim there.²⁷ Dr. Price also admitted that thick algal mats could impede fishing.²⁸

The impact of increased phosphorus in Texas Hill Country streams is well documented and is demonstrated by the above pictures of excessive algal blooms in the Lower San Gabriel River and in East Lick Creek downstream of municipal wastewater discharges. With increased phosphorus concentrations, the dominant algae species shifts, allowing the growth of long strands of a type of algae known as “*Cladophora sp.*”²⁹ Furthermore, Dr. Ross testified that available data demonstrates “significant changes in benthic algae when total phosphorus concentrations in Texas Hill Country streams increase to more than 0.02 to 0.05 mg/L.”³⁰ Under ordinary conditions, Helotes Creek directly

²⁴ Ex. GEAA-100 at 16:12-21.

²⁵ Tr. Vol. 2 at 163:1-9.

²⁶ Tr. Vol. 2 at 166:6-8.

²⁷ *Id.* at 160:24 – 161:14.

²⁸ *Id.* at 161:13-23.

²⁹ Ex. GEAA-100 at 16:14-20.

³⁰ *Id.* at 16:23-26; Ex. GEAA-119, Figure 4.

downstream of the proposed discharge is dry outside of intermittent pools, meaning that the discharge will not undergo any dilution of phosphorus concentrations as it travels within this stretch of the discharge route.³¹

As described above, Applicant's own biologist admitted that the proposed discharge may cause algal plugs in intermittent pools in Helotes Creek. However, Dr. Price dismissed algal growth as a "natural" occurrence.³² This analysis is oversimplified and fails to recognize that increased phosphorus concentrations in wastewater promote the growth of *different* and *excessive* algae than would be present under "natural conditions." In fact, Dr. Price found that the algal conditions in the Lower San Gabriel River and East Lick Creek would not be considered "aesthetically pleasing" by the general public,³³ but was unable to significantly differentiate these water bodies from the impounded areas of Helotes Creek. The Applicant did not otherwise present *any* evidence sufficient to demonstrate that a total phosphorus limit of 0.15 mg/L would maintain the "aesthetically attractive" conditions of Helotes Creek in compliance with the General Texas Water Quality Criteria under 30 Tex. Admin. Code § 307.4(a)(4).

Furthermore, excessive algae growth leads to decreased species diversity and would affect the aquatic life uses and primary contact recreation uses of the receiving waters.

Research demonstrates a decline in species diversity when total phosphorus concentrations increase from less than 0.025 to 0.1 mg/L.³⁴ For this reason, Dr. Ross

³¹ Ex. GEAA-100 at 6-10.

³² Tr. Vol. 2 at 159:17-25.

³³ Tr. Vol. 2 at 163:1-9.

³⁴ Ex. GEAA-100 at 16:21-23; Ex. GEAA-118 at 5, Figure 1.

testified that “[t]he concentration of total phosphorus in Texas Hill Country streams like Helotes Creek should be maintained at 0.02 mg/L to maintain natural algae assemblages and to protect the most sensitive fish species.”³⁵ The conditions in the Lower San Gabriel River and East Lick Creek demonstrate how thick algal mats impede the ability of the general public to swim, wade, fish, and otherwise recreate in the receiving waters, as admitted by Dr. Price.³⁶ This alteration of the conditions of Helotes Creek so as to prevent the attainment of high aquatic life uses renders the issuance of the Permit in violation of the Tier 1 anti-degradation review of 30 Tex. Admin. Code § 307.5(b)(1).

Due to the Commission’s failure to adequately address the potential for the impacts of excessive algal growth upon the high aquatic life uses of Helotes Creek, FOF 10, 37, 45, 47 and 49, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

³⁵ Ex. GEAA-100 at 16:26-28.

³⁶ Tr. Vol. 2 at 160:24 – 161:23.

C. Due to the failure to conduct any Tier 2 anti-degradation review for Helotes Creek, the Commission's Final Order violates the Tier 2 anti-degradation protections of the TSWQS at 30 Tex. Admin. Code § 307.5(b)(2).

TCEQ erred in neglecting to subject Helotes Creek to a Tier 2 anti-degradation review premised upon the mistaken characterization of Helotes Creek as not fishable/swimmable.

TCEQ's Tier 2 anti-degradation review applies to all waters that are fishable/swimmable. The evidence establishes beyond any dispute that Helotes Creek is both fishable and swimmable and, thus, should have been subjected to a Tier 2 anti-degradation review.

Kerry McEntire and others fish in Helotes Creek in the City of Grey Forest downstream of the proposed discharge for spotted bass, crayfish, and sun perch.³⁷ Mr. McEntire testified that whenever he goes fishing in Helotes Creek, he is virtually guaranteed to catch sun perch.³⁸

³⁷ See, generally, Ex. GEAA-600 at 10-13, 5:4-7, 6:18 – 7:7.

³⁸ Ex. GEAA-600 at 4-7.



**Kerry McEntire with Spotted Bass
caught in Helotes Creek³⁹**



Sun Perch Caught in Helotes Creek⁴⁰

Consistent with the presence of this wildlife, and the associated fishing activities, Helotes Creek is “fishable.”

Furthermore, the uncontested evidence demonstrates that Helotes Creek is “swimmable.” Kerry McEntire offered unchallenged testimony that he learned to swim in Helotes Creek, that he has taught his children to swim in Helotes Creek, and that insects land on his feet while he is floating in the swimming hole along Helotes Creek.⁴¹

³⁹ Ex. GEAA-601.

⁴⁰ Ex. GEAA-605; Ex. GEAA-600 at 5:2-7.

⁴¹ Ex. GEAA-600 at 3:10-12, 5:11-14.

The TCEQ staff acknowledge that their aquatic life use determinations are preliminary, meaning they may be modified if new information is received.⁴² In this case, the additional information developed as a result of the hearing warranted treatment of the unnamed tributary as subject to no less than intermediate aquatic life use, and “fishable/swimmable.”

Because Helotes Creek was classified as not fishable/swimmable, the TCEQ performed no Tier 2 anti-degradation review whatsoever with regard to Helotes Creek. In other words, TCEQ failed to undertake any effort to ensure that the quality of water within Helotes Creek was not degraded.

Due to TCEQ’s failure to recognize Helotes Creek as fishable/swimmable, and TCEQ’s failure to perform any Tier 2 anti-degradation review of Helotes Creek, TCEQ’s decision violated 30 Tex. Admin. Code § 307.5(b)(2), and FOF 36, 37, 38, 43 and 51, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

⁴² *Id.* at 1-2.

D. TCEQ's Tier 2 anti-degradation review was flawed for its failure to consider alternatives, and TCEQ erred in premising its decision upon consideration of a settlement agreement requiring beneficial reuse that is not required by the permit.

A wholistic review of the potential impact of the discharge upon Helotes Creek would have revealed that the impact of the discharge was greater than *de minimis*. The potential for algal growth discussed above is greater than *de minimis*. Had the required alternatives review been performed, a genuine consideration of the proposal to land apply the effluent by beneficial use (as set forth in Applicant's settlement with San Antonio Metropolitan Health District⁴³) would have been given public consideration. The full consequences of both options would have been subject to public scrutiny, with the public able to have input on the risks of each option, as well as the fact that neither option was necessary due to the speculative nature of the development. The beneficial reuse option reflected in the settlement agreement between Applicant and San Antonio Metropolitan Health creates its own risk of contamination of the underlying karst aquifer, and rapid movement of effluent into Helotes Creek and area wells. Applicant relied upon this settlement agreement in closing arguments and argument before the Commission. The consideration of this settlement agreement by the ALJs and the Commission without providing Aligned Protestants with the opportunity to respond violated Aligned Protestants' due process rights, and Aligned Protestants' right to present argument and

⁴³ See Attachment A (Settlement Agreement between Applicant and San Antonio Metropolitan Health District, Dec. 23, 2024).

evidence on each issue presented in a hearing, pursuant to Texas Government Code Section 2001.051(2).

Applicant's settlement by which it agreed to implement such beneficial reuse demonstrates that this was an alternative that should have been considered and fully evaluated under a proper Tier 2 analysis. FOF 8, 10, 11, 43, 47, 48, 51, 54 and 67, as well as COL 8, 10, 11 and 12 (reflecting TCEQ's failure to perform a Tier 2 anti-degradation review to determine whether the discharge was necessary in light of this alternative, and in light of the speculative nature of the development proposed to be served by the wastewater treatment plant producing the discharge, as well as the Commission's improper consideration of the settlement agreement in determining compliance with regulations other than Tier 2 anti-degradation requirements), were: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

Aligned Protestants objected to the admission of testimony regarding this settlement agreement, as it was not part of the requirements of the permit, including testimony by Keith Arrant.⁴⁴ The ALJs overruled these objections by Order No. 3. That Order was in error for admitting discussion of this settlement agreement, as it was irrelevant since it is

⁴⁴ Aligned Protestants' Objections to and Motion to Strike Portions of Applicant and Executive Director's Prefiled Testimony and Exhibits, Feb. 7, 2025.

not a requirement of the permit. The ALJs relied upon this settlement agreement within the PFD.⁴⁵ The Commission's consideration of this settlement agreement, without incorporating compliance with the settlement agreement as a binding term of the permit, or as a required alternative to discharge, rendered FOF 43, 48, 49, 51 and 61, as well as COL 8, 10, 11 and 12: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

E. TCEQ's decision violates the general criteria of the TSWQS at 30 Tex. Admin. Code § 307.4.

1. The authorized discharge of phosphorus has a reasonable potential to result in excessive algal growth and not maintain the aesthetically attractive condition of the receiving waters, in violation of 30 Tex. Admin. Code § 307.4(b)(4) and (e).

As discussed extensively above, the proposed discharge was shown to have the potential to cause excessive algal growth. Issuance of the Permit despite this potential was a violation of the general criteria of the TSWQS at 30 Tex. Admin. Code § 307.4. For this reason, FOF 45 and COL 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary

⁴⁵ See PFD at 1.

and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

2. The authorization of the discharge without any consideration of toxic PFAS violates 30 Tex. Admin. Code § 307.4(d).

While no specific regulatory standards exist for Contaminants of Emerging Concern (“CECs”), including PFAS, consideration of the impacts of toxic substances is necessary under the TCEQ general criteria found at 30 Tex. Admin. Code § 307.4(d): “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.”

The impacts on human and aquatic health of one form of CECs, per- and polyfluoroalkyl substances (“PFAS”), in drinking water and surface water have been evaluated by the U.S. EPA. In April 2024, EPA established enforceable primary drinking water standards for CECs, including PFAS. 89 Fed. Reg. 32532. In December 2024, EPA established the Draft National Recommended Ambient Water Quality Criteria for PFAS. 89 Fed. Reg. 105041. EPA’s April 2024 Final Rule found that “animal toxicity studies have reported adverse health effects after oral HFPO-DA exposure, including liver and kidney toxicity and immune, hematological, reproductive, and developmental effects” and “may have an adverse effect on the health of persons.” *Id.* at 32544. EPA’s health advisories, which identify the concentration of chemicals in drinking water at or below which adverse health effects are not anticipated to occur, are: 0.004 parts per trillion (ppt) for perfluorooctanoic acid (PFOA), 0.02 ppt for perfluorooctane sulfonic acid (PFOS), and 2,000 ppt for potassium perfluorobutane sulfonate (PFBS). 87 Fed. Reg. 36848 (June 21,

2022). These EPA rules and guidance are relevant to surface quality analysis because, under this rule, CECs such as PFAS are properly considered toxic substances under TCEQ Rules 307.4(d) and 307.6.

The toxicity of PFAS has also been noted by the State of Texas in its suit against 3M Company, Corteva, Inc., DuPont De Nemours, Inc. and EIDP, Inc. f/k/a E.I. Du Pont de Nemours and Company.⁴⁶ In the Original Petition for that action, the State of Texas noted that, “3M has known for decades that the PFAS contained in its products, such as PFOS, are toxic and adversely affect the environment and human health.”⁴⁷ The State of Texas went on to state that:

PFAS are “persistent, bioaccumulative and **toxic**” (“PBT”), and exposure in humans may be associated with diseases such as cancer and decreased vaccine response. Further, PFAS, once introduced into the environment, accumulate in fish, game, and other animal and plant life, contaminate drinking water and other natural resources, and accumulate in the blood of humans.⁴⁸

As discussed above, the general criteria TSWQS in Chapter 307 of the TCEQ rules, at 307.4(d), provide 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.” It is uncontested that the discharge will potentially contain PFAS.⁴⁹ Since PFAS are toxic, and TCEQ’s rules require that surface waters must not be toxic, a consideration of the impact of PFAS within the discharge is necessary in order to determine that the discharge

⁴⁶ Ex. GEAA-123 (Offer of Proof).

⁴⁷ Ex. GEAA-123 (Offer of Proof) at 22.

⁴⁸ Ex. GEAA-123 (Offer of Proof) at 3.

⁴⁹ Ex. GEAA-300 at 6.

does not have a reasonable potential to result in a violation of the TSWQS. Yet, TCEQ entered FOF 55, stating that, “Similar to PFAS, TCEQ has no rules regulating Contaminants of Emerging Concern,” and FOF 56, stating that, “TCEQ’s rules concerning toxicity do not regulate PFAS or CECs.” TCEQ erred in entering these findings, considering the relevance of PFAS.

Due to the harmful effects of PFAS, it is also impossible to determine that attainable uses of a water body will be protected as required under the Tier 1 anti-degradation review, and that a discharge will not cause degradation, as required under the Tier 2 anti-degradation review unless the impacts of PFAS are considered.

Applicant referenced a prior order of the TCEQ as establishing, “a clear policy and established precedent” that TCEQ does not regulate CECs as a matter of law, and TCEQ does not consider CECs (which would include PFAS) to be relevant or material to the issuance of a TPDES permit.⁵⁰ To the degree that the Commission relied upon this prior order as establishing general Commission policy, the Commission has engaged in relying upon an invalid rule.

Due to the Commission’s disregard for PFAS contained within the discharge, FOF 10, 11, 49, 51, 55, 56 and 68 as well as COL 5, 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by

⁵⁰ Applicant’s Objections to the Direct Testimony and Exhibits of Protestants, Feb. 7, 2025, at 2, citing *An Order Granting the Application by Highland Lakes Midlothian I, LLC for TPDES Permit No. WQ0015999001*, TCEQ Docket No. 2023-0844-MWD, SOAH Docket No. 582-23-23818, Explanation of Changes at 12 (Aug. 5, 2024).

substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

3. The Commission erred in refusing to admit evidence relating to PFAS contamination.

As part of the prefilled testimony offered during the contested case hearing, Aligned Protestants offered Exhibit GEAA-123, which was a copy of Plaintiff's Original Petition in the matter of *State of Texas v. 3M Company; Corteva, Inc., DuPont de Nemours, Inc., and EIDP, Inc f/k/a E.I. Du Pont de Nemours and Company*, Docket No. DC-C202400996, 18th Judicial District, Johnson County, Texas.

This Exhibit was objected to by Applicant based on Texas Rule of Evidence 401, asserting that “TCEQ does not regulate PFAS in wastewater permitting cases despite the State of Texas’ recent filing of this pending lawsuit.”⁵¹ The ALJs sustained this objection by the ALJs’ February 13, 2025 Order No. 3: Addressing Prehearing Matters. The ALJs reiterated this ruling during the hearing on the merits.⁵² The ALJs’ decision to strike this Exhibit was in error, as the document is relevant to a determination of whether PFAS constitute a toxic pollutant, and the discharge of toxic pollutants must be addressed in the permitting process pursuant to 30 Tex. Admin. Code §§ 305.531(4), 307.1, 307.4(d) and 307.6.

⁵¹ Applicant’s Objections to the Direct Testimony and Exhibits of Protestants, Feb. 7, 2025, at 27, *see also id.* at 2-3.

⁵² Tr. Vol. 1 at 120.

Because Exhibit GEAA-123 was relevant, and the ALJs improperly struck the Exhibit as irrelevant, the ALJs' Order No. 3 striking the Exhibit, the ALJs' reiteration of that ruling, the Commission's adoption of that ruling, FOF 49, 51, 54 and 61, and COL 8, 10 and 15 (on which Exhibit GEAA-123 would have been relevant) are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

V. The Commission's Final Order violates the Commission's rules relating to groundwater, and the Commission improperly excluded evidence relating to groundwater impacts of the facility and discharge.

A. Applicable Law

Under Texas Water Code § 26.401(c)(1), it is State policy that "discharges of pollutants, disposal of wastes, or other activities subject to regulation by state agencies be conducted in a manner that will maintain present uses and not impair potential uses of groundwater or pose a public health hazard."

30 Tex. Admin. Code § 309.12 further requires that the "[t]he commission may not issue a permit for a new facility . . . unless it finds that the proposed site, when evaluated in light of the proposed design, construction or operational features, minimizes possible contamination of water in the state." In making this determination, the same rule provides that the Commission may consider several factors, including "groundwater conditions such

as groundwater flow rate, groundwater quality, length of flow path to points of discharge, and aquifer recharge or discharge conditions.” 30 Tex. Admin. Code § 309.12(2).

B. Groundwater Context

Dr. Ron Green provided extensive testimony that groundwater in the area of the proposed discharge is particularly sensitive to groundwater contamination. The receiving waters are located in the Contributing Zone of the Edwards Aquifer, which is hydraulically connected to the Recharge Zone, allowing minimally diluted contaminants to travel rapidly through the system at a rate of approximately one mile per day.⁵³ Helotes Creek shortly downstream of the discharge crosses a fault,⁵⁴ which may serve as a conduit for the movement of contaminants in the discharge into the groundwater.⁵⁵

Due to this high transport rate, contaminants—including pathogens—will have limited time to be mitigated before reaching nearby groundwater wells, posing a significant risk to drinking water supplies.⁵⁶ Dr. Green noted that wells used for domestic supply at the Ann Toepperwein household and the Lynette Toepperwein Munson household are located within ½ mile of where Helotes Creek exits Guajolote Ranch, meaning that effluent discharged upstream of these wells could arrive at the wells within 1-2 days of the time of discharge.⁵⁷ Such domestic wells in the area are typically developed in the Upper Glen Rose (a component of the Trinity Aquifer) given that this aquifer has freshwater at a depth

⁵³ Ex. GEAA-200 at 5:15-21.

⁵⁴ Ex. GEAA-203.

⁵⁵ Ex. GEAA-200 at 7:13-18.

⁵⁶ Ex. GEAA-200 at 5:21-24.

⁵⁷ Ex. GEAA-200 at 11:14-17.

shallower than the Lower Glen Rose Aquifer.⁵⁸ His site inspection confirmed the presence of fractured bedrock and faults in the creek bed, which serve as conduits for contaminants to enter the aquifer.⁵⁹

Both the shallow domestic wells and the deeper Grey Forest Utility wells are at risk of contamination. The shallow wells, such as those owned by the Toepperwein household, are in a karst aquifer where the potential exists for a close connection with the downstream waters.⁶⁰ This creates a high likelihood that recharge that occurs in the creek bed will reach the groundwater wells near the creek bed.⁶¹ While the wells owned by GFU are completed to a greater depth, the potential still exists for contaminants from the discharge to reach these wells due to the faults located between the wells and the discharge point.⁶² This could occur in less than 24 hours.⁶³ The GFU wells are located within $\frac{1}{4}$ mile of Helotes Creek, “meaning that the contaminants will not have far to travel in order to move from the creekbed to the wells” in Dr. Green’s words.⁶⁴

⁵⁸ Ex. GEAA-200 at 10:8-15.

⁵⁹ *Id.* at 7:21-8:10.

⁶⁰ Ex. GEAA-200 at 11:1-6.

⁶¹ Ex. GEAA-200 at 11:7-9.

⁶² Ex. GEAA-200 at 12:10-24.

⁶³ Ex. GEAA-200 at 12:23-24.

⁶⁴ Ex. GEAA-200 at 12:22-23.

C. Commission Errors Relating to Groundwater

1. The Commission’s decision that the Permit was adequately protective of groundwater was based on a “policy,” never adopted by rule, that compliance with the TSWQS also ensures that groundwater will not be degraded.

The Commission’s Final Order includes a finding that “The discharge’s compliance with the TSWQS, which ensure that the surface water will be protected and not degraded, also ensures that groundwater will not be degraded.”⁶⁵ This is more accurately considered a conclusion of law, rather than a finding of fact, as it sets forth a policy determination by the Commission. There is no support for this conclusion, particularly given that such “policy” has never been adopted by rule, and nitrate is a potentially harmful contaminant in groundwater which was not the subject of any regulation by the Commission’s application of the TSWQS in this case.

The surface water quality standards establish no limit on contaminants relevant to the protection of groundwater quality, and thus fail to protect groundwater quality. As one example, the TSWQS as applied in this case allow the discharge of nitrate with no limit on the concentration or amount of nitrate discharged.⁶⁶ Nitrate is a contaminant subject to a primary drinking water standard of 10 mg/L, but in studies, nitrates in lower concentrations have been linked to increased risk of colorectal, bladder, and breast cancer, thyroid disease, diabetes, and birth defects.⁶⁷ In addition, as discussed above, PFAS can be toxic, but TCEQ’s application of the TSWQS involves no consideration of PFAS. This lack of

⁶⁵ Final Order at FOF 61.

⁶⁶ Ex. GEAA-100 at 26:12-25.

⁶⁷ Ex. GEAA-100 at 27:6-11.

regulation of PFAS in surface water is another way by which the application of the TSWQS fails to ensure protection of groundwater quality. This is particularly of concern given that the Edwards Aquifer Authority has performed sampling of groundwater wells in the area that shows PFAS to already be present within those wells.⁶⁸

The Commission's reliance upon a general policy that compliance with the TSWQS ensures that groundwater will not be degraded constitutes reliance upon an invalid rule, which also has no basis in the record. For this reason, FOF 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

2. The Commission erred in failing to protect the quality of *all* groundwater, based, in part, upon the improper exclusion of evidence that relevant wells were in the Upper Trinity.

The Commission's Final Order includes a finding of fact that, "Domestic drinking water wells in the vicinity of the discharge are completed in the Middle Trinity Aquifer."⁶⁹ This conclusion was based on nothing more than speculation by Applicant's witness as to the decisions that a well-driller almost a century ago would have made.⁷⁰ This Finding of

⁶⁸ Ex. GF-8 at 17-18 (Offer of Proof).

⁶⁹ Final Order at FOF 59.

⁷⁰ PFD at 72, relying on testimony by Applicant's expert witness that historical local wells were likely completed into Middle Trinity because Upper Trinity in area was an unreliable drinking water source and his survey of modern wells had indicated that all but one modern well was completed in Middle Trinity. This witness had no personal knowledge of the depth of the wells at issue.

Fact was also premised upon a record which had excluded Aligned Protestants' Exhibit GF-8, the deposition of F. Paul Bertetti.

Mr. Bertetti is the Senior Director of Aquifer Science, Research and Modeling at the Edwards Aquifer Authority ("EAA").⁷¹ He testified by deposition that the EAA had performed sampling of groundwater wells in the Grey Forest area, completed in both the Upper Trinity and Lower Trinity, as well as a combination thereof.⁷² He noted that many wells in the area are drilled to depths without specific units to which they are open and collect water from.⁷³ This testimony by Mr. Bertetti indicated that the wells in the area are not completed in a fashion so that they are only "open" to the formation at their depth of completion, as a properly-completed modern well would be. Rather, this testimony indicates that a well completed, for example, into the Middle Trinity Aquifer may still be drawing water from both the Middle Trinity and the Upper Trinity Aquifer.

Mr. Bertetti also offered testimony that PFAS has been detected in the sampling of groundwater wells in the area of the groundwater wells of concern in this case.⁷⁴

This testimony was obtained by Aligned Protestants' deposition of Mr. Bertetti. During that deposition, the counsel for Municipal Operations was given the opportunity to question Mr. Bertetti, but chose to use that opportunity to engage in persistent harassing

⁷¹ Ex. GF-8 at 7 (Offer of Proof).

⁷² Bertetti Dep. at 16 (Attachment A to this Motion).

⁷³ Ex. GF-8 at 16-17 (Offer of Proof).

⁷⁴ Ex. GF-8 at 17-18 (Offer of Proof); *see also* Attachment B to this Motion (Complete Deposition of F. Paul Bertetti, Feb. 10, 2025).

examination of the witness, which led to the counsel for Mr. Bertetti ending the deposition.⁷⁵

Applicant moved to strike Mr. Bertetti's deposition based upon the fact that the deposition had been terminated by Mr. Bertetti's counsel,⁷⁶ even though Applicant had made no efforts to pursue further questioning of Mr. Bertetti. The ALJs granted this Motion, and ruled that they would exclude his deposition testimony, and exclude questioning based upon that document.⁷⁷

The Commission erred in premising its finding that groundwater would be protected in light of the alleged fact that the groundwater wells owned by Aligned Protestants were located in the Middle Trinity Aquifer. Even if it was true that Aligned Protestants' wells all draw solely from the Middle Trinity Aquifer (the speculative testimony from Applicant's witnesses did not support such a finding), TCEQ rules require the protection of *all* groundwater – not just the groundwater where protesting parties own wells. Because the Commission failed to address the protection of groundwater located within the Upper Trinity Aquifer (based upon speculative testimony that was not probative evidence), FOF 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable

⁷⁵ Bertetti Dep. at 40-51 (Attachment B to this Motion).

⁷⁶ Municipal Operations, LLC's Motion to Strike Deposition Testimony of Paul Bertetti, Feb. 18, 2025.

⁷⁷ Tr. Vol. 2 at 9.

and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

Furthermore, the deposition testimony of Mr. Bertetti was relevant and material, and the fact that Applicant's counsel chose to engage in harassing questioning of Mr. Bertetti did not justify the exclusion of the deposition of Mr. Bertetti. Accordingly, the ALJs' exclusion of that deposition, and the Commission's adoption of that exclusion, as well as FOF 59, 60 and 61 and COL 8, 10 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

VI. Issuance of the Permit violated the Commission's rules requiring protection of wildlife.

A. Applicable Law

Independent of the protection of existing and attainable uses, the Water Quality Standards also contain general criteria which require the protection of wildlife. In particular, 30 Tex. Admin. Code § 307.6(4) provides that, “[w]ater in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, or domestic animals, resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three.” When approving Texas' delegated authority to issue Texas Pollutant Discharge Elimination System permits, the EPA noted that this

standard, “requires [TCEQ] to impose case-specific conditions in TPDES permits to protect aquatic and aquatic-dependent species (including listed species) from the toxic effects of discharges when Texas’ other toxic criteria and implementation procedures provide insufficient protection.” State Program Requirements; Approval of Application to Administer the National Pollutant Discharge Elimination System (NPDES) Program; Texas, 63 Fed. Reg. 51164, 51197 (Sept. 24, 1998).

B. The Commission’s decision failed to protect impacted wildlife by disregarding the impacts of PFAS.

As noted above, the Commission refused to consider the impacts of PFAS in any way. This refusal to consider the impacts of PFAS rendered the Commission unable to make a finding that the water would not be toxic to wildlife, as required by 30 Tex. Admin Code § 307.6(4). Due to this failure, FOF 55, 56, 64, 66, 67 and 68 and COL 8, 10, 11 and 12 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

C. The Commission erred in failing to perform a case-specific evaluation of impacts upon endangered species, instead relying upon a 1998 U.S. Fish and Wildlife Service Biological Opinion.

The endangered species review identified by the Commission in its Final Order is premised upon a 1998 biological opinion of the USFWS, and looked only to aquatic or aquatic dependent species in priority watersheds of critical concern. This is relied upon in

the Commission's Final Order as a reason to excuse the consideration of karst invertebrates, based upon a finding that karst invertebrates are not aquatic or aquatic dependent species.

As previously observed by the Environmental Protection Agency, 30 Tex. Admin. Code § 307.6(4) protects all wildlife, including terrestrial wildlife and requires a case-specific analysis of the potential impact of a discharge upon endangered species. The mere protection of "limited" aquatic life uses, as was performed for the receiving waters of Helotes Creek, does not implement this rule for such species. The Commission's lack of any case-specific evaluation of the potential impact of the discharge upon endangered karst invertebrates is a violation of 30 Tex. Admin. Code § 307.6(4). Accordingly, FOF 56, 62, 64, 66 and 67, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

D. The Commission's determination that karst invertebrates will not be adversely impacted by the discharge failed to recognize and address the potential presence of karst invertebrates along the discharge route, and was thus in error.

The Commission's Final Order errs in concluding that the Draft Permit's maintenance of aquatic life uses protects aquatic life, terrestrial life, and wildlife, including endangered species. The record fails to support a finding that the Draft Permit is protective of wildlife, including the endangered karst invertebrates.

The Applicant's Endangered Species Habitat Assessment Report performed by Pape-Dawson specifically states that "surface expression of karst invertebrate habitat was identified during the field visit."⁷⁸ In this assessment, Pape-Dawson identified solution channels in the vicinity of the discharge route including those designated as S-07, S-08, and S-09.⁷⁹ Applicant's investigation noted that both S-07 and S-08 extended down vertically.⁸⁰ The Executive Director's Standards Reviewer, Ms. Labrie, conceded that the possibility existed that solution cavity S-07 potentially extended to below the surface of the streambed of Helotes Creek.⁸¹

Dr. Price himself did not rule out the potential for karst invertebrates to have a significant likelihood of encountering or being adversely affected by the discharge.⁸² He testified that the karst habitat features on the property may or may not have animals living in them, such as the spiders and beetles that have received attention in this matter.⁸³ Dr. Price admitted that he had no idea as to whether the karst features identified by Pape-Dawson extended to a depth below the level of the stream receiving the discharge.⁸⁴ Dr. Price admitted that he did not know how far karst features 7, 8, and 9 are from the receiving streambed.⁸⁵

⁷⁸ App. Ex. 10 at APP000404.

⁷⁹ App. Ex. 10 at 418.

⁸⁰ App. Ex. 10 at 403.

⁸¹ Tr. Vol. 3 at 73:3-17.

⁸² App. Ex. 20 at 14:27 – 15:1.

⁸³ Tr. Vol. 2 at 145:24 – 146:2.

⁸⁴ Tr. Vol. 2 at 142:9-11.

⁸⁵ Tr. Vol. 2 at 148:14-19.

Applicant's expert Steve Paulson asserted in his direct testimony that the features identified by Pape-Dawson were "upstream and upslope of the discharge point."⁸⁶ Yet, under cross-examination, Mr. Paulson claimed that the discharge point is "probably" at the lowest point on the property.⁸⁷ He questioned the accuracy of the depiction of the location of the discharge point within the adjacent landowners map in the Application, and said that the location shown on the adjacent landowners map in the Application is not consistent with his understanding of the location of the discharge point.⁸⁸ At the same time, he, too, stated that he did not know how far beneath the ground the solution channels identified by Pape-Dawson extended.⁸⁹ When pressed to identify the location of the discharge point, Mr. Paulson said that "I'm not going to comment" and went on to say that "it doesn't really matter because wastewater does not affect these species."⁹⁰ In short, Mr. Paulson's opinion that species within the solution cavities would not be impacted was based upon a misunderstanding of the relative location of the solution channels and the discharge point, and a conclusory opinion that the wastewater would not harm the species.

Given that karst invertebrates are potentially present in areas impacted by the proposed discharge, FOF 62, 64, 66 and 67, as well as COL 8, 10, 11 and 12, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the

⁸⁶ App. Ex. 8 at 9:28-31.

⁸⁷ Tr. Vol. 1 at 276:20-23.

⁸⁸ Tr. Vol. 1 at 280:14-21, 282:8 – 283:7.

⁸⁹ Tr. Vol. 1 at 277:22 – 278:2.

⁹⁰ Tr. Vol. 1 at 285:2-7.

record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

VII. The Commission’s findings of fact are conclusory, and do not adequately resolve the legitimate factual disputes presented in this matter.

When adopting findings of fact, the findings of the agency must be based on the evidence. Tex. Gov’t Code § 2001.141(c). Findings of fact that set forth statutory language must include explicit underlying fact findings. *Id.* Findings should be stated as the agency’s findings and should relate to material basic facts. *Charter Med.—Dallas*, 665 S.W.2d at 451. And the findings should resolve legitimate factual disagreements. *Id.* A mere recital of testimony or summations of evidence is inadequate. *Id.* Nor is it enough to simply find that the requisite information was included in the permit application. *Id.*

The record in this case presented numerous factual disputes that are not addressed in the Commission’s Final Order with adequate specificity.

For example, as to the Tier 1 anti-degradation review, the Commission’s Final Order simply states, by FOF 49, in a conclusory manner, that the ED properly conducted a Tier 1 review for all water bodies. This does not address and resolve the factual dispute as to whether Helotes Creek should be considered to be of high aquatic life uses, which is a legitimate factual disagreement in this matter. Similarly, the Commission failed to address the evidence that Helotes Creek is fishable/swimmable, and thus should be subjected to a Tier 2 review.

Furthermore, the Final Order wholly fails to resolve disputes as to the potential impact of PFAS.

This inadequacy renders FOF 37, 49, 55, 66 and 67 and COL 8, 10, 11 and 12: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

VIII. The Commission’s finding that the Draft Permit complies with the Commission’s nuisance odor rules violates TCEQ Rule 309.13(e)(1).

The Permit does not meet the buffer zone requirements of the TCEQ rules. Under, TCEQ Rule 309.13(e)(1), “[l]agoons with zones of anaerobic activity (e.g., facultative lagoons, un-aerated equalization basins, etc.) may not be located closer than 500 feet to the nearest property line.” 30 Tex. Admin. Code § 309.13(e)(1). The Application states that the wastewater will be treated by “anaerobic selectors.”⁹¹ Since these are units with zones of anaerobic activity, this unit should be subject to a buffer zone distance of 500 feet as required by 30 Tex. Admin. Code § 309.13(e)(1). Yet, it was only subjected to a buffer zone requirement of 150 feet.

Because the proper buffer zone was not required for the anaerobic selectors at the facility, FOF 69 and 70, as well as COL 8 and 13, are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ’s authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6)

⁹¹ See Applicant Ex. 1, Administrative Record Tab D, at 239.

arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

IX. The Commission improperly allocated the burden upon the parties.

Texas Government Code Section 2003.047(i-1)-(i-3) sets out the procedure for the presentation of evidence at the SOAH hearing. So, the permit applicant—here, Municipal Operations—may rely on the administrative record for its initial presentation of evidence (i.e., its direct case), and benefits from a *prima facie* demonstration once the administrative record is filed.

A protesting party may then rebut the *prima facie* demonstration by presenting evidence that (1) relates to an issue that was submitted to SOAH by TCEQ when the matter was referred, and (2) demonstrates that one or more provisions of the draft permit violate a state or federal requirement.

If the protesting party rebuts the *prima facie* demonstration, then, the applicant must present additional evidence to support its case.

Because the permit applicant maintains the burden of proof throughout this process, a protesting party's burden is akin to a burden of production.⁹² If a protesting party satisfies this burden of production, then, the *prima facie* demonstration no longer applies with regard

⁹² See 40 Tex. Reg. 9688 (Dec. 25, 2015) (explaining, in regard to TCEQ rules implementing SB709, that while the burden of proof remains with the applicant, that burden can be met “by the submittal of the administrative record to and its admittance into the evidentiary record by SOAH, subject to rebuttal as provided in new Texas Government Code § 2003.047(i-2). In addition, SB 709 does not establish the evidentiary standard for any party in a [contested case hearing], nor does it provide any direction to SOAH or the commission to establish a new standard for the rebuttal demonstration in new Texas Government Code § 2003.047(i-2). Because [contested case hearings] are similar to non-jury civil trials in district court, the evidentiary standard in [contested case hearings] for permit applications is ‘preponderance of the evidence.’”).

to the contested issue, and the permit applicant may not rely on the *prima facie* presumption based on the filing of the administrative record. More is required.

The ALJ is then tasked with making findings of fact, conclusions of law, and any ultimate findings, all of which must be separately stated. Tex. Gov't Code § 2003.047(l); Tex. Health & Safety Code § 361.0832(a). The Commission thereafter must issue a final decision that also includes findings of fact and conclusions of law, separately stated. Tex. Gov't Code § 2001.141. The requirements for these findings are discussed above.

In this case, on a number of contested issues, the ALJs failed to correctly implement the parties' relative legal burdens, relieving Municipal Operations of its burden of proof by a preponderance of the evidence on issues where the *prima facie* demonstration was rebutted by Aligned Protestants' evidence. The ALJs then presented the Commission with a Proposed Order that failed to engage with the evidence presented and resolve the factual disputes based on the evidence.

Among other issues, the ALJs, and the Commission, improperly imposed a burden of persuasion upon Aligned Protestants on issues related to groundwater impacts (wherein the Commission placed the burden on Aligned Protestants to prove that impacted wells were in the Upper Trinity, and prove a migration pathway even though Applicant's witness said such a pathway could exist), as well as impacts upon wildlife (wherein the Commission place the burden upon Aligned Protestants to prove that endangered species were present in impacted areas), and surface water impacts (particularly those related to the modeling of dissolved oxygen). This misallocation of the burden of proof rendered FOF 13, 37, 39, 43, 49, 59, 60, 61, 62, 64, 66, 67 and 69 and COL 8, 10, 11, 12, 13 and 15: (1)

in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

X. Conclusion

For the reasons stated above, FOF 8, 10, 11, 13, 22, 36, 37, 38, 39, 41, 42, 43, 45, 47, 48, 49, 51, 54, 55, 56, 59, 60, 61, 62, 64, 65, 66, 67, 68, 69 and 70 and COL 5, 8, 10, 11, 12, 13 and 15 are: (1) in violation of constitutional or statutory provisions; (2) in excess of TCEQ's authority; (3) made through unlawful procedure; (4) affected by other error of law; (5) not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole; and (6) arbitrary and capricious and characterized by an abuse of discretion or clearly unwarranted exercise of discretion.

Aligned Protestants respectfully request that the Commission set Municipal Operations' Application for rehearing and, upon rehearing, deny Municipal Operations' Application. Aligned Protestants further request such other and further relief to which they may be justly entitled.

Respectfully submitted,

/s/ Eric Allmon
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CERTIFICATE OF SERVICE

I do hereby certify that, on November 24, 2025, a true and correct copy of the foregoing document was served upon the following parties via electronic service.

/s/ Eric Allmon
Eric Allmon

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ATTACHMENT A

SETTLEMENT AGREEMENT

STATE OF TEXAS
COUNTY OF BEXAR

The Parties to this Settlement Agreement are Municipal Operations, LLC (“Municipal Operations”), a limited liability company organized pursuant to Texas law, and the San Antonio Metropolitan Health District (“Metro Health”), an administrative department of the City of San Antonio (collectively, the “Parties”).

RECITALS

1. On or around May 23, 2022, Municipal Operations filed an application with the Texas Commission on Environmental Quality (“TCEQ”) for Texas Pollutant Discharge Elimination System (“TPDES”) Permit No. WQ0016171001, that would authorize the discharge of treated domestic effluent from a Wastewater Treatment Plant (“WWTP”) serving a new residential subdivision in Bexar County, Texas (the “site”).
2. Metro Health opposed Municipal Operations’ application and requested that the TCEQ grant a contested case hearing. The TCEQ docketed this matter as TCEQ Docket No. 2024-0670-MWD, granted Metro Health’s request and referred the case to the State Office of Administrative Hearings (“SOAH”) where Metro Health was named a party.
3. The Parties acknowledge that the SOAH proceeding would reflect bona fide disputes and controversies between the Parties concerning the issues relating to Municipal Operations’ TPDES application.
4. The Parties desire to avoid further annoyance, cost, delay, and uncertainty associated with the SOAH proceeding and have accordingly entered into this agreement to fully settle all issues concerning Municipal Operations’ TPDES permit application. Therefore, in order to fully and finally compromise and settle all claims that have been or could have been asserted in the SOAH proceeding, the Parties hereby enter into this Settlement Agreement.

TERMS OF AGREEMENT

In consideration of the mutual promises and agreements contained in this Settlement Agreement, the Parties agree as follows:

1. Within three (3) business days following the effective date of this Agreement, Metro Health will file with SOAH and the TCEQ and serve on all parties in TCEQ Docket No. 2024-0670-MWD, a request to withdraw its hearing request as an affected person and party with prejudice, thereby withdrawing its opposition to Municipal Operations’ TPDES application. Metro Health agrees to not pursue any additional legal action before any state or federal agency or before any court regarding this TPDES permit application.

2. Municipal Operations will employ a Class A operator who will be responsible for the operation and maintenance of the WWTP and collection system during the permit term. Municipal Operations will request that this requirement be included in its TPDES permit after permit issuance through a minor amendment.

3. Prior to discharging any effluent from the WWTP, Municipal Operations will obtain and maintain authorization for beneficial reuse of the treated wastewater effluent generated by the WWTP under title 30 Texas Administrative Code Chapter 210. Municipal Operations further agrees that the quality of reuse water will meet Type 1 standards as required by Title 30 Texas Administrative Code Section 210.33, and that reuse water will only be used on common areas within the development and not on property owned by individual homeowners. Municipal Operations will reuse the treated effluent during the permit term to the maximum extent practicable.

4. When constructing and operating the reuse water system, Municipal Operations will comply with the San Antonio Water System's ("SAWS") Cross Connection and Backflow Prevention requirements to prevent contamination of the potable water system and will allow SAWS access to the reuse system at all times for inspection and testing..

5. Municipal Operations will ensure a minimum of 4 inches of soil in areas used for beneficial reuse by irrigation of treated effluent during the permit term. Importing of soil will only be required in areas where the existing condition does not already consist of a minimum of 4 inches of soil.

6. Municipal Operations will monitor the WWTP and lift stations 24 hours per day/7 days per week via SCADA or equivalent system, or auto-dialer equipment during the permit term.

7. Municipal Operations will maintain a 24-hour answering service as well as on-call staff to receive and respond to after-hours calls during the permit term.

8. Municipal Operations will provide all field vehicles with GPS monitoring equipment allowing operations staff to expedite response time during the permit term.

9. Municipal Operations' personnel will be on site within one hour of being notified of an operational issue to diagnose and/or cure any operational issue as necessary.

10. Municipal Operations will design and construct wet wells for the sanitary sewer facilities of sufficient capacity to contain, at a minimum, sixty (60) minutes of peak design flow.

11. Municipal Operations will provide emergency contact information to SA Metro Health and SAWS.

12. This Agreement is solely for the benefit of the Parties hereto. There are no third-party beneficiaries of this Agreement. This Settlement Agreement is a compromise of disputed claims. Nothing in this Settlement Agreement constitutes an admission on any issue by any party.

13. The Parties agree to cooperate fully and execute any and all supplementary documents and to take all additional actions that may be necessary or appropriate to give full force and effect to the terms and intent of this Settlement Agreement.

14. Any breach of the provisions of paragraphs 1 through 11 of this Settlement Agreement shall constitute a material breach of this Settlement Agreement for which the Parties may seek appropriate injunctive relief in a court of competent jurisdiction, including, but not limited to, repayment of the reasonable attorneys' fees necessary for enforcement of this Settlement Agreement.

15. The Parties recognize that this Settlement Agreement is made solely to avoid the burdens and expense of additional and protracted litigation.

16. The Parties acknowledge that they have been advised to consult with an attorney before signing this Settlement Agreement and that they have consulted with and been represented by their attorneys. The Parties further acknowledge that they (i) have carefully read this Settlement Agreement in its entirety and have had an opportunity to consider fully the terms of this Settlement Agreement for a reasonable amount of time; (ii) fully understand the significance of all the terms and conditions of this Settlement Agreement; (iii) are signing it voluntarily and of their own free will; (iv) assent to all of the terms and conditions contained herein; and (v) are not relying on any representations or promises not set forth herein in signing this Settlement Agreement, but solely upon their own investigations.

17. The Parties represent and warrant that they are authorized and entitled to sign this Settlement Agreement, that no other person or entity has any interest in the matters released in this Settlement Agreement, and that the Parties own and have not sold, pledged or hypothecated, assigned or transferred or purported to sell, pledge, hypothecate, assign or transfer to any person or entity all or any portion of the matters or claims released in this Settlement Agreement.

18. This Settlement Agreement represents the only agreement between the Parties concerning Municipal Operations' TPDES permit pending in TCEQ Docket No. 2024-0670-MWD and supersedes all prior settlement agreements, whether written or oral, relating thereto. This Settlement Agreement is a complete and fully integrated agreement and may not be modified except by a subsequently executed document signed by all the Parties.

19. Any waiver of any term or condition of this Settlement Agreement shall not operate as a waiver of any other term or condition, nor shall any failure to enforce a provision of this Settlement Agreement operate as a waiver of such provision or of any other provision of this Settlement Agreement.

20. Should any provision of this Settlement Agreement, or its application, to any extent be held invalid or unenforceable, the remainder of this Settlement Agreement, and its application, excluding such invalid or unenforceable provisions, shall not be affected by such exclusion and shall continue to be valid and enforceable to the fullest extent permitted by law or equity.

21. No amendment of this Agreement shall be effective unless and until it is duly approved by each party and reduced to a writing signed by the Parties, which amendment shall incorporate this Agreement in every particular not otherwise changed by the amendment.

22. This Agreement shall be construed under and in accordance with the laws of the State of Texas and all obligations of the parties are expressly deemed performable in Bexar County, Texas.

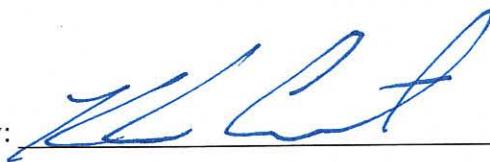
23. Venue for any suit arising hereunder shall be in Bexar County, Texas.

24. Municipal Operations considers the provisions of this Settlement Agreement as confidential information excepted from the Public Information Act. SA Metro Health, the City of San Antonio, and SAWS will respond to any public information act requests regarding the Settlement Agreement pursuant to the procedure set out in Texas Government Code § 552.305.

25. This Settlement Agreement is effective upon signature by all Parties.

APPROVED:

Municipal Operations, LLC

By: 

Date: 12/24/2024

Title: Officer

City of San Antonio

By: 

Date: 12-23-24

for Claude A. Jacob, DrPH, MPH
Health Director
San Antonio Metropolitan Health District

ATTACHMENT B

SOAH DOCKET NO. 582-25-01778
TCEQ DOCKET NO. 2024-0670-MWD

REMOTE ORAL DEPOSITION OF

F. PAUL BERTETTI

FEBRUARY 10, 2025

REMOTE ORAL DEPOSITION OF F. PAUL BERTETTI,
produced as a witness at the instance of Greater Edwards
Aquifer Alliance and the City of Grey Forest, and duly
sworn, was taken in the above-styled and -numbered cause
on February 10, 2025, from 2:04 p.m. to 3:16 p.m.,
before Angela L. Mancuso, CSR No. 4514, in and for the
State of Texas, reported by machine shorthand, the
witness being located in San Antonio, Texas, pursuant to
Notice and any provisions stated on the record.

2

REMOTE APPEARANCES

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9
10 ALSO PRESENT:
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24
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10 Jordan Crago, Protestants' Expert
11 Ron Green, Protestants' Expert
12 Kaveh Khorzad
13 Gwyneth Lonergan, Allmon Legal Assistant
14 Richard Mott
15 Lauren Ross, Protestants' Expert
16 Sheridan Thompson

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23	REPORTER'S NOTE:		
24	Quotation marks are used for clarity and do not necessarily reflect a direct quote.		
25			

1 "THE REPORTER: I am Angela L. Mancuso,
2 Texas CSR 4514. I am located in Keller, Texas, and
3 taking this deposition by machine shorthand. The
4 witness is located in San Antonio, Texas."

5 P R O C E E D I N G S

6 (February 10, 2025, 2:04 p.m.)

7 THE REPORTER: Would counsel please state
8 appearances.

9 MR. ALLMON: Yes, I guess I can go ahead
10 as the one who has noticed the deposition. This is Eric
11 Allmon. I'm here on behalf of Greater Edwards Aquifer
12 Alliance and the City of Grey Forest.

13 MS. GILBERT: Helen Gilbert, on behalf of
14 Applicant, Municipal Operations LLC.

15 MR. ECKHART: Brad Eckhart, on behalf of
16 the Executive Director. With me is Fernando Salazar
17 Martinez.

18 MR. MERCER: This is Josiah Mercer, on
19 behalf of the Office of Public Interest Counsel. I have
20 Jennifer Jamison with me as well.

21 MS. TREJO: This is Deborah Trejo,
22 representing Paul Bertetti, not a party to this matter.

23 MR. CONOLY: This is Wyatt Conoly, also
24 representing Paul Bertetti, not a party to this matter.

25 (Witness sworn by reporter)

1 F. PAUL BERTETTI,
2 having been first duly sworn, testifies as follows:

4 BY MR ATTISON:

5 O. Good afternoon, Mr. Bertetti. How are you?

6 A. Good, sir. How are you today?

7 Q. Doing well. Thank you for taking time out of
8 your day to be here with us.

9 | Have you been deposed before?

10 A. No, I have not.

11 Q. Okay. Just a few things. If I ask a question
12 that you don't understand, please feel free to ask me to
13 clarify. I want to try and make sure, as much as
14 possible, that we're on the same page as the question
15 I'm asking, so that it matches up with the answer you
16 provide.

17 And I know -- sometimes we have to be careful,
18 particularly on Zoom, not to talk over each other. It
19 just makes the court reporter's job a bit easier.

20 And this isn't a marathon. So feel free at
21 any point, if you need a break, to let me know. I don't
22 anticipate this will be a long deposition, so that may
23 be moot. But if you need a break, just let me know. I
24 would only ask that you not seek a break while we have a
25 question pending. If you could ask -- if you could wait

1 for a point there when we're in between questions, that
2 would be appreciated.

3 So could you state your name for the record?

4 A. Yes. My name is Franklin Paul Bertetti. I go
5 by Paul Bertetti.

6 Q. Okay. And who do you work for?

7 A. I work for the Edwards Aquifer Authority.

8 Q. And what's your position?

9 A. I'm the Senior Director of Aquifer Science
10 Research and Modeling at the Edward Aquifer Authority.

11 Q. And how long have you been in that position?

12 A. I've been in this position for approximately
13 six years.

14 Q. Okay. Did you hold another position with the
15 Edwards Aquifer Authority?

16 A. I did. I started out as the research manager.

17 Q. And how long were you in that position?

18 A. Approximately one year.

19 Q. Okay. And what are your responsibilities in
20 your current position?

21 A. I manage the Aquifer Science Research Program
22 and the staff associated with aquifer science. I also
23 manage our modeling program and the staff associated
24 with the modeling program.

25 Q. And what type of activities does the Aquifer

1 Science Program engage in?

2 A. In general, we conduct research to better
3 understand and characterize the aquifer system. That
4 includes our Groundwater Quality Monitoring Program,
5 field-based research activities, inter-formational flow
6 research, and vulnerability research.

7 We also conduct research at our Field Research
8 Park, where we're looking at various land management
9 activities and their potential influence on aquifer
10 recharge and groundwater quality.

11 Q. And I think you said that you had some
12 supervision authority over a program other than the
13 Aquifer Science Program?

14 A. Correct. We have a team of modelers. That's
15 another set of our staff that also contributes to both
16 modeling our research activities but also the general
17 aquifer water numerical model. We also model -- the
18 team also conducts research to support the Edwards
19 Aquifer Habitat Conservation Plan Incidental Take permit
20 renewal process that is currently underway.

21 Q. Okay. I'm going to go ahead and share my
22 screen, just to try and orient us a little bit here. Do
23 you have before you now a map?

24 A. I do.

25 Q. Do you recognize this?

1 A. Yes. It looks like an outline of the Edwards
2 Aquifer and its components, along with the EAA
3 jurisdictional boundary.

4 Q. Okay. Do you see an area marked as Artesian
5 Zone here?

6 A. I do. It appears to be a beige color on the
7 map.

8 Q. And what does -- when we talk about the
9 artesian zone of the Edwards Aquifer, what is that?

10 A. Generally, the artesian zone refers to the
11 component of the aquifer that is underground and
12 confined. It's a confined nature in which it has
13 multiple layers of geological units above the aquifer
14 units in that area, and as result, recharge from the
15 recharge zone builds up pressure within the artesian
16 zone.

17 Typically, we have artesian-related wells,
18 when they penetrate the aquifer system in that area.
19 "Artesian" refers to water levels that are greater than
20 the elevation of the aquifer, the uppermost aquifer
21 strata. If the artesian pressure goes above the
22 surface, then you can have a flowing artesian well.

23 An example of a flowing artesian component
24 would be, like, Comal Springs, in which water is flowing
25 out of the aquifer system due to the artesian pressure

10

1 in the aquifer.

2 Q. And I see an area depicted as the Recharge
3 Zone there as well. Do you see that?

4 A. Yes, sir.

5 Q. And what's the recharge zone of the aquifer?

6 A. Recharge zone is the area where Edwards
7 Aquifer rocks are exposed at the surface. Typically, it
8 is the area in which the aquifer receives recharge.

9 Q. And I also see the Contributing Zone there.

10 Can you describe what the contributing zone
11 represents?

12 A. The contributing zone is the area north of the
13 recharge zone, where other unit rocks outcrop, for
14 instance, the Glen Rose Limestone. Runoff from
15 precipitation and spring discharge in the contributing
16 zone typically contributes to flowing streams that cross
17 the recharge zone, and that contributes to recharge in
18 the Edwards Aquifer system.

19 Q. As we look at the Edwards Aquifer, what kind
20 of behavior do we see in terms of the speed with which
21 water can flow in the Edwards Aquifer?

22 A. The rate of flow in the aquifer varies quite a
23 bit. It can be as much as a few thousand feet per day
24 to a few tens of feet per day. That's quite variable,
25 depending on where in the zone that you are and what

11

1 part of the aquifer that you're in.

2 Q. Does that have any consequences for the
3 dilution of contaminants within the aquifer?

4 A. I'm not sure the rate of flow has consequences
5 for dilution as much as the rapidity of recharge and
6 nearness of the surface to the flow of the zones might
7 impact -- and the nature of the aquifer matrix might
8 impact its ability to dilute or filter water.

9 Q. How does the nature of the aquifer matrix
10 influence the ability or the nature of contaminants to
11 dilute in the aquifer?

12 A. The aquifer is a karstic system in which there
13 are significant secondary porosity and conduits that
14 form, as a result of dissolution of limestone in the
15 recharge zone, components like sinkholes and fractures
16 and fault depressions, and also additional porosity due
17 to dissolution of limestone enable for infiltration into
18 the rock. Infiltration in those channels or conduits
19 can be relatively rapid.

20 Q. When you talked about additional infiltration
21 in addition to that from some of the conduits you
22 mentioned, so if one were looking at a stream and didn't
23 see any type of obvious recharge feature such as a fault
24 or a sinkhole, can there still be infiltration occurring
25 within that stream?

12

1 A. Yes.

2 Q. And how would that happen?

3 A. A lot of recharge occurs in fractures within
4 the rock and force essentially secondary porosity that's
5 available. Often those are covered by silt or other
6 components, so they're not directly visible in
7 streambeds.

8 Q. Now, as we look in, say, the contributing
9 zone, what types of -- what aquifers are there that
10 would be at the surface in the contributing zone that
11 lay underneath the Edwards members?

12 A. The majority of the contributing zone,
13 although it varies depending on location, is composed of
14 the Glen Rose Limestone, both the upper and lower units,
15 also exposures of the Edwards Limestone and other rocks.

16 Q. Are those elements of the Trinity Aquifer?

17 A. The Glen Rose Limestone makes up parts of the
18 Trinity Aquifer, yes.

19 Q. What's the difference between the upper and
20 the middle and the lower portions of the Trinity
21 Aquifer?

22 A. The Upper Trinity Aquifer is composed
23 primarily of the Upper Glen Rose unit. The Middle
24 Trinity Aquifer is primarily composed of the Lower
25 Glen Rose unit and the Cow Creek Limestone, which lies

13

1 underneath the Lower Glen Rose.

2 Q. And is the behavior of groundwater in the
3 Upper Trinity similar to that that we've discussed in
4 the Edwards Aquifer?

5 A. For the most part, yes.

6 MS. TREJO: Excuse me. I just want to go
7 on the record to make a general objection that
8 Mr. Bertetti is not disclosed as an expert witness in
9 this case, and you are asking him to opine on a lot of
10 things which he's not a disclosed expert witness to do.
11 So I'd like to just have that as a recurring objection
12 throughout.

13 I don't know -- I mean, there has been no
14 qualification. I don't believe he's been noticed or
15 identified as an expert witness in this matter. So I'm
16 not -- I'm not sure that any of this is admissible,
17 but -- and I'm not a party -- we're not a party in this
18 matter, but I am concerned with you asking him a whole
19 series of questions about his opinions on things, when,
20 you know, that is not a role he is serving.

21 Fact questions and what is the components of
22 the members of one aquifer or another are
23 well-established facts. But you are getting into an
24 awful lot of opinions, so if I could just have a running
25 objection as to the scope of the questions calling for

1 expert opinion.

2 MR. ALLMON: Of course. That's noted.

3 We don't plan to present him as an expert in the case.

4 The witnesses have already been filed. We're not
5 presenting him as an expert witness. But I respect the
6 objection.

7 Q. So as we look at the -- in your work, have you
8 looked at what nature of connections may exist between
9 the Upper Trinity and the Middle Trinity?

10 A. We have not done a lot of work to evaluate
11 connections between the Upper and Middle Trinity
12 Aquifer, no.

13 Q. Have you done work to look at connections
14 between the Edwards Aquifer and the Upper Trinity?

15 A. Yes.

16 Q. And what's the nature of that work?

17 A. We are interested in learning the locations,
18 the potential locations, and magnitude of water transfer
19 between the Trinity Aquifer system and the Edwards
20 Aquifer system.

21 Q. Okay. Now, I'm going to share another
22 exhibit, just to orient ourselves to a particular area
23 of interest.

24 Do you have before you now another aerial
25 photograph?

15

1 A. I do. It's entitled Municipal Operations LLC,
2 Map 2.

3 Q. And do you see here the city of Grey Forest
4 outlined in yellow?

5 A. I do.

6 Q. Are you familiar with this area?

7 A. Partially. I'm not extremely familiar, but,
8 yes, I'm aware of Grey Forest in that location.

9 Q. Has the Edwards Aquifer Authority done any
10 groundwater well sampling in this area?

11 A. We have, yes.

12 Q. And what type of groundwater well sampling was
13 done in this area?

14 A. We have sampled wells for a range of analytes
15 that might be related to our research to look at the
16 interactions between the Trinity and the Edwards
17 Aquifers.

18 Q. And what were those analytes?

19 A. Typically, we sample for major ions, trace
20 elements, minor elements, trace and minor elements. We
21 also take field parameters at the sampling point,
22 isotopes of water and carbon, in addition to nutrients,
23 if applicable. We also sample for compounds of
24 interest, (indiscernible), PFAS, or per- and
25 polyfluoralkyl substances.

1 Q. Do you include sampling for bacteria?

2 A. Yes. Yes, we do.

3 Q. And that may well fit within one of the
4 categories you described. I'm just not necessarily
5 familiar with all of the terms.

6 A. No, I did not mention that.

7 Q. Okay. And roughly how many wells in this area
8 have the Edwards Aquifer Authority conducted sampling
9 in?

10 A. To the best of my knowledge, we have sampled
11 on the order of eight to a dozen wells over the last
12 five or six years, but I don't recall exactly the
13 number. And I don't recall if they all would be within
14 that Grey Forest area. They might be in the greater
15 Grey Forest and Helotes region.

16 Q. Okay. Do you know what aquifer those wells
17 were in?

18 A. It's difficult to say, exactly. Most of the
19 wells are completed either in the Upper Glen Rose or the
20 Middle Trinity, Upper Trinity or Middle Trinity, or some
21 combination thereof. There is not a lot of well control
22 in that area.

23 Q. Okay. When you say "not a lot of well
24 control," what does that mean?

25 A. Many wells are drilled to a depth without a

1 lot of specific information on the units to which they
2 are open and collect water from, and so it's very
3 difficult to verify the actual unit, unless there is
4 good recorded data.

5 Q. What types of contaminants were observed in
6 those wells once you did the testing?

7 A. It depends on the well. Typically, we get
8 responses for a range of major ions and metals,
9 including some -- including results for almost all of
10 our isotope results. From a contaminant standpoint or
11 potential contaminant standpoint, we do see some hits
12 for the PFAS compounds in many of the samples. Some of
13 the metals might be classified as that. Most of those
14 are naturally occurring.

15 Q. Did you come across any nutrients in the
16 wells?

17 A. We did. Sometimes we have indications of
18 nitrate, possibly phosphorus. I do not recall. I
19 wouldn't characterize those as contaminants at this
20 point.

21 Q. Okay. Did you come across any bacteria in any
22 of the wells?

23 A. I believe there have been some results for
24 positive coliform and/or E. coli in those wells. I
25 don't recall the number or frequency.

18

1 Q. You mentioned coming across PFAS in some
2 wells.

3 Did you-all make any considerations for what
4 the source of that may be?

5 A. No.

6 Q. Okay. Do you have any -- did you draw any
7 conclusions as to what the source of those PFAS might
8 be?

9 A. We do not have specific information about the
10 source of any PFAS. We're currently attempting to
11 characterize the magnitude of the concentrations and the
12 spatial distribution of PFAS in the system.

13 Q. Did you draw any conclusions as to what types
14 of things might be the source of those PFAS?

15 A. There are many sources for PFAS. PFAS are
16 man-made chemical compounds. But, no, we don't have any
17 direct information on the source of PFAS in any of those
18 wells.

19 Q. So if they're man-made, would it -- would you
20 anticipate that the source would be of anthropogenic
21 origin?

22 A. Yes.

23 Q. And did y'all make any effort to determine
24 what types of sources there may be for bacteria that was
25 observed?

1 A. No, not at this time. I believe some wells
2 may have had counts that were high enough to do source
3 tracking, but we have not done that to this point.

4 Q. Is that something that the district is
5 considering?

6 A. We have -- we have considered it. We have not
7 done that at this point.

8 Q. All right. Do you have any recollection as to
9 where the PFAS were observed?

10 A. I believe for the wells that we sampled for
11 PFAS, that PFAS are detected in nearly all the wells.

12 Q. So when you say "nearly all the wells," that's
13 nearly all the wells here in the Grey Forest area?

14 A. Correct. There may be a well without direct
15 results. I don't recall, explicitly. But typically
16 wells in this region have detections of PFAS almost all
17 the time.

18 Q. Have you done sampling for PFAS in other areas
19 of the Edwards Aquifer?

20 A. Yes.

21 Q. And do you find PFAS in all areas of the
22 Edwards Aquifer?

23 A. No.

24 Q. Is this the only area of the Edwards Aquifer
25 where you have found PFAS?

20

1 A. Well, these wells are primarily in the Trinity
2 Aquifer system. We have detections of PFAS in the
3 Edwards Aquifer system as well.

4 Q. Is there any particular geographic area where
5 those detections have been made?

6 A. Yes.

7 Q. And what's that area?

8 A. We see the largest concentrations and the most
9 consistent detections in the Edwards Aquifer Recharge
10 Zone in northern Bexar County.

11 Q. And where is that located in relationship to
12 the Grey Forest area?

13 A. The Grey Forest area in western Bexar County
14 is just north a couple of miles of the Edwards Aquifer
15 Recharge Zone. I don't know the exact distance.

16 Q. Do you recall what concentrations of PFAS were
17 observed?

18 A. They vary quite a bit by individual compound,
19 and I don't know if we have completed enough analysis to
20 say with any consistency. The numbers typically range
21 from detectable at unquantifiable levels, but with
22 positive detections, to something on the order of ten
23 parts per trillion.

24 Q. And do you recall where the wells that were
25 sampled were located relative to surface water streams?

1 A. I do not. I do not have that information yet.
2 That's not something I've seen to this point.

3 Q. Now, you said that nutrients were observed in
4 some of the wells?

5 A. Correct.

6 Q. Were those similar to observations that were
7 made in other wells through the Edwards Aquifer?

8 A. Yes.

9 Q. Did you make any -- did you or the district
10 try and draw any conclusions as to what the source of
11 those nutrients was?

12 A. We are currently investigating sources of
13 components like nitrate throughout the aquifer system.
14 Don't think we've got to the point where we can draw any
15 conclusions about particular sources. It's a matter of
16 uncertainty and some interest by others.

17 Q. Now, did you draw any conclusions of whether
18 there were any drinking water concerns in light of the
19 PFAS that were observed?

20 A. No, not yet.

21 Q. Do you recall what the range of depths were in
22 the wells that were sampled?

23 A. Are you speaking in terms of the Grey Forest
24 area?

25 Q. Yeah, the Grey Forest area, yeah.

1 A. Yes. I don't recall directly. At this time I
2 think the range was something between 150 and 400 feet,
3 but I am uncertain of those numbers.

4 Q. Okay. Did you make any analysis of the
5 presence of faults in this area relative to the wells
6 that were sampled?

7 A. We have not done any direct measurements of
8 faults in the area. There are maps that already exist.

9 Q. Do you -- does the Edwards Aquifer Authority
10 have any testing sites near Cibolo Creek?

11 A. We do have sites near Cibolo Creek but -- and
12 the eastern part of the county of Cibolo Creek, so I
13 don't think we have any direct testing sites near Cibolo
14 Creek in that area. We do have wells in the recharge
15 zone that we do monitor periodically.

16 Q. And have PFAS been observed in those testing
17 sites on Cibolo Creek more on the eastern side of Bexar
18 County?

19 A. We have had detections in some of the wells of
20 the eastern part of the county, yes.

21 Q. Have you performed -- has the Edwards Aquifer
22 Authority performed any dye tracer studies in the area
23 of Grey Forest?

24 A. Not during my tenure at the Edwards Aquifer
25 Authority, and I am generally unaware of previous

23

1 testing in that area.

2 Q. Are you aware of any testing done by others?

3 A. I am not aware of dye tracer testing in the
4 Grey Forest area done by others at this point.

5 Q. Okay. Do you know, relative to the city of
6 Grey Forest, where the wells that you sampled, kind of
7 what compass direction they were from the city, in
8 general?

9 A. Generally, we have sampled within the city
10 box as indicated on this map, Municipal Operations LLC,
11 Map 2. We have had some surface and well samples
12 upstream along Helotes Creek. We've had some samples to
13 the west and slightly to the east along Lee Creek and
14 Chimenea Creek. So in those areas -- I think we have
15 sampled wells in all of those areas.

16 Q. And were all of those groundwater sampling
17 from wells?

18 A. No. They range from groundwater and surface
19 water samples.

20 Q. When we've talked so far, were your answers --
21 were those entirely regarding the well, the groundwater
22 sampling?

23 A. That is correct.

24 Q. What types of testing have been done of the
25 surface water there in Helotes Creek?

24

1 A. When we sample surface water, we sample for
2 the same -- for the same range of analytes. So that
3 would include major and minor elements, trace metals,
4 water isotopes, isotopes with carbon, and nutrients and
5 coliform bacteria and PFAS, depending on the year of the
6 sampling.

7 Q. And when you say "depending on the year," what
8 does that depend on?

9 A. PFAS sampling ramped up after my arrival at
10 EAA. We started in 2017, and because of costs and other
11 factors, we increased our sampling rate over the years.
12 So samples collected in, say, 2018 and 2019 had varying
13 numbers of PFAS analyzed. So some samples in the
14 previous four or five years were not -- PFAS were not
15 included in the sample suite.

16 Q. In the surface water sampling performed there
17 in Helotes Creek, has PFAS been observed?

18 A. In recent samples, yes, PFAS have been
19 detected in the surface waters.

20 Q. Were they observed in prior samples where PFAS
21 was an analyte that was evaluated?

22 A. To my recollection, yes.

23 Q. Was -- so have they been present, when
24 analyzed for, at all times when that sampling was done?

25 A. To the best of my recollection, yes.

25

1 Q. And has bacteria been detected in those
2 surface water samples?

3 A. It has. That has -- the amounts have varied,
4 and I do not recall specifics on when or how much has
5 been detected.

6 Q. All right. So, I guess, does that mean you
7 don't recall as to whether those levels were above or
8 below the water quality standards?

9 A. That's correct. I would have to -- I would
10 have to look up that information.

11 Q. And were nutrients observed in any of those
12 samples?

13 A. Yes.

14 Q. Do you recall at what level those nutrients
15 were observed at?

16 A. No, I do not. We did complete a scoping study
17 in 2018 and '19 to look at nutrient concentrations
18 associated with periphyton in the surface waters in and
19 around Helotes.

20 Q. And did you draw any conclusions as a result
21 of that study?

22 A. Generally some of the results were mixed, but
23 there were nutrients that were detected as part of that
24 process.

25 Q. Do you recall at what level nutrients were

1 detected?

2 A. Not particularly. I think that varied,
3 depending on the condition of the stream at the time it
4 was sampled. It's always difficult with ephemeral
5 stream flow and trying to separate stagnant versus
6 non-stagnant conditions. The primary focus of that
7 study was to evaluate the technique, so that was our
8 main focus of the results.

9 Q. For any of the contaminants we've discussed,
10 were there seasonal patterns in the levels that were
11 observed?

12 A. We do not have enough samples to make that
13 determination.

14 MR. ALLMON: I'm going to take just a
15 five-minute break, and we can come back. We may well be
16 done here.

17 (Recess from 2:37 p.m. to 2:42 p.m.)

18 MR. ALLMON: Thank you, Mr. Bertetti.

19 First, I'll note for the court reporter it is
20 my intent to have the first map of the Edwards Aquifer
21 marked as Exhibit 1 to this deposition and the second
22 map, the Municipal Operations map, marked as Exhibit 2
23 to the deposition. My legal assistant will be sending
24 that to you later.

25 I think I may have just a few more questions

1 for you, Mr. Bertetti.

2 MS. GILBERT: Hey, Eric, I want to chime
3 in real quick.

4 MR. ALLMON: Sure.

5 MS. GILBERT: That second exhibit is not
6 the Municipal Operations exhibit. That was prepared by
7 the Executive Director, I think.

8 MR. ALLMON: I was just saying it's
9 labeled Municipal Operations. I wasn't implying that
10 was prepared by Municipal Operations.

11 MS. GILBERT: Just clarifying.

12 MR. ALLMON: Sure. That's fine.

13 BY MR. ALLMON:

14 Q. Mr. Bertetti, we discussed sampling of surface
15 water by the Edwards Aquifer Authority. Do you recall
16 that?

17 A. Yes, sir.

18 Q. And I think we discussed that there were some
19 PFAS observed in some of those samples.

20 A. Yes, sir.

21 Q. Was that sampling performed in both the water
22 column and the sediment or one or the other?

23 A. No. We only have sampled from the water
24 column.

25 Q. Okay. So that PFAS that was present would

28

1 have been present in the water column itself. Would
2 that be correct?

3 A. That's correct. We filter samples, so it
4 would be dissolved constituents.

5 MR. ALLMON: All right. That's all of my
6 questions for you today. I do appreciate your time.

7 THE WITNESS: Very good, sir.

8 MR. ALLMON: I guess I pass the witness.
9 I'll see if anyone else has questions for you.

10 MS. GILBERT: Applicant has questions. I
11 think I heard OPIC say no questions. So I'll just ask,
12 Fernando or Brad, do you have questions?

13 MR. ECKHART: The ED has no questions.

14 MS. GILBERT: Okay. Then it looks like
15 it's just me.

16 EXAMINATION

17 BY MS. GILBERT:

18 Q. Hello, Mr. Bertetti. Can you hear me okay?

19 A. Yes, I can. Thank you.

20 Q. And have I pronounced your name properly?

21 A. Yes, ma'am.

22 Q. Okay. Well, it's nice to meet you. Sorry
23 it's not in person. And because it's not in person, I
24 need to ask you a couple of questions about where you
25 are and how you got here.

1 So -- and just to the extent that Mr. Allmon
2 didn't cover all this, of course, if you don't
3 understand something about my question, please feel free
4 to ask me to rephrase it. If you can't hear me, I'll
5 just try to enunciate and vocalize better, that kind of
6 thing. If you need to take a break, just let me know.

7 A. Yes, ma'am.

8 Q. You are obligated to -- you are under oath,
9 and you are obligated to answer my questions truthfully.
10 You can't not answer my questions just because you don't
11 like them or the other attorneys object to my questions.
12 You have to do your best to answer my questions.

13 Do you understand?

14 A. I understand.

15 Q. Okay. Primarily I'd like to know why you're
16 here today.

17 A. I received a subpoena a week before last to
18 appear for this deposition.

19 Q. Did you receive the subpoena out of the blue,
20 or did somebody call you ahead of time and let you know
21 you were going to get it?

22 A. I think I received a phone call ahead of time
23 to let me know that a subpoena might be coming.

24 Q. And who was it that reached out to you?

25 A. I think the first phone call was from Annalisa

30

1 and -- from the Greater Edwards Aquifer Alliance.

2 Q. Annalisa Peace. Is that correct?

3 A. Yes, ma'am.

4 Q. What was the nature of your participation as
5 explained by Annalisa?

6 A. She said would I be willing to give a
7 deposition, and I agreed so. The specifics were not
8 discussed, if I recall. My understanding was they
9 wanted background information about the wastewater
10 discharge permit in the Grey Forest area.

11 Q. When you talk about the wastewater discharge
12 permit, you're talking about the subject matter of this
13 proceeding, the municipal --

14 A. Yes, ma'am.

15 Q. -- permit?

16 Had you heard about the permit application
17 before that call with Ms. Peace?

18 A. Yes, I have. I'm generally aware of it, but I
19 haven't been following it very closely because I'm not
20 involved in that process.

21 Q. So going back to that phone call, did
22 Ms. Peace or anybody else with GEAA or Mr. Allmon's
23 office provide you sample question-and-answers for the
24 kinds of issues that we'd be going over today?

25 A. No, ma'am.

1 Q. Did your attorneys prepare you for your
2 deposition today, Ms. Trejo or Mr. Conoly?

3 A. I had conversations with them to outline the
4 process of the deposition.

5 Q. Okay. Just kind of the housekeeping stuff or
6 the substantive portions?

7 MS. TREJO: I'm going to object. Hold
8 on. I'm going to make an objection because you are
9 calling for privileged information. You're asking for
10 confidential communications, what was discussed in
11 deposition prep.

12 MS. GILBERT: Let me clarify.

13 MS. TREJO: I'm instructing my -- hold
14 on. I'm instructing my client not to answer.

15 Q. So let's back up, Mr. Bertetti. Something I'm
16 a little confused by. Is Mr. Allmon's statement -- by
17 the way, were you provided a copy of Mr. Allmon's
18 response to our motion to quash your deposition?

19 A. (Shaking head from side to side).

20 Q. No?

21 A. I have not seen that.

22 Q. Were you aware that Mr. Allmon said that
23 Mr. Bertetti is not being deposed as a representative of
24 the Edwards Aquifer Authority? Were you aware of that?

25 A. I guess I was generally aware that that was

1 their indication when they were going to subpoena me,
2 yes, something like that.

3 Q. I'm sorry. Was whose indication?

4 A. My -- if I recall correctly, I was initially
5 told, I think, during that process that they were asking
6 me not as an official representative of EAA.

7 Q. But in your personal capacity?

8 A. That was my understanding.

9 MS. TREJO: Object because -- object to
10 form.

11 Q. That's fine. You can go ahead and answer the
12 question, Mr. Bertetti.

13 A. That was my understanding.

14 Q. And that was conveyed to you by Ms. Peace or
15 Mr. Allmon or somebody else?

16 A. Either Ms. Peace or Mr. Allmon, in the
17 conversation before I received the subpoena.

18 Q. Okay. I had understood that you only talked
19 to Ms. Peace.

20 So you also talked to Mr. Allmon?

21 A. That is correct.

22 Q. Okay. What did you talk to Mr. Allmon about,
23 specifically?

24 A. He said -- I'm not -- I'm not exactly sure I
25 recall explicitly. I think it was would I be available

1 during that following week for a deposition, and that he
2 wasn't going to ask me about expertise in wastewater
3 discharge, because I made it clear that I did not have
4 expertise in wastewater discharge.

5 Q. But he also -- you just mentioned that he said
6 you would only be called in your personal capacity, not
7 as a representative of EAA. Correct?

8 A. That was my understanding, yes.

9 Q. Okay. So you covered the fact that you were
10 not testifying about wastewater discharge permits and
11 that you were being called in your personal capacity.

12 Did you speak about anything else with
13 Mr. Allmon?

14 A. No, ma'am.

15 Q. How long was the conversation?

16 A. Less than five minutes.

17 Q. Okay. Was it by phone or email?

18 A. By phone.

19 Q. Okay. So are you in your office at the EAA
20 today?

21 A. Yes, ma'am.

22 Q. Okay. Are you participating on a computer
23 owned by the EAA right now?

24 A. Yes, ma'am.

25 Q. And, you know, I should have asked, and I

1 apologize. I can see your office is a lot neater than
2 mine.

3 But do you have anything in front of you,
4 like, maps or pre-filed testimony or your phone that you
5 might be receiving text messages on while we're
6 speaking? Anything like that?

7 A. I have my phone.

8 Q. Okay. Are you receiving text messages during
9 this deposition?

10 A. I have received a text message from Deborah
11 Trejo during the deposition.

12 Q. Okay. So Ms. Trejo said earlier, as an
13 initial and ongoing objection, that the EAA wasn't a
14 party here and you weren't disclosed as an expert. Do
15 you recall that statement?

16 A. Yes, ma'am.

17 Q. Does EAA have a policy about its employees
18 participating in depositions in their personal capacity
19 while they're in the office, like, sort of employee
20 handbook-type deal or some regulations?

21 MS. TREJO: I'm objecting as to form, but
22 I'm also objecting as to presuming the fact that
23 Mr. Allmon's assertion about the nature of
24 Mr. Bertetti's appearance is in fact accurate.

25 While Mr. -- whatever the -- Mr. Bertetti is

1 an employee of the EAA. He has testified about things
2 that -- he was asked about things he's done in his job
3 as an EAA employee. So whatever assertion was made
4 about Mr. Bertetti being called and subpoenaed to
5 testify is not an established fact. So the question
6 I'm -- objecting to the form of the question on multiple
7 grounds, but that's among them.

8 Q. Okay. So that was pretty lengthy,
9 Mr. Bertetti. Do you remember my question?

10 A. No. Could you repeat it, please. Thank you.
11 I apologize.

12 Q. I'm not sure I remember it, either.

13 MS. TREJO: You asked about whether there
14 is an EAA policy.

15 MS. GILBERT: Yeah, yeah, yeah.

16 Q. Right. And I'd still like to know that.

17 Mr. Bertetti, are you aware of any EAA policy
18 that pertains to employees participating in depositions
19 in their personal capacity?

20 A. I'm not aware of a specific policy one way or
21 the other. I did communicate with my supervisors and
22 the EAA executive management regarding this particular
23 request for deposition, so they were aware of this.

24 Q. Did you have to elicit their approval?

25 A. I believe that I was told that I was not

36

1 prohibited from participating as an individual, but they
2 also did not object to this process.

3 Q. Okay. Understood. I understand you're in
4 your EAA office and you're participating on an EAA
5 computer.

6 Are you taking vacation time right now, or is
7 this just part of your working day being deposed in the
8 EAA offices?

9 A. This is part of my working day.

10 Q. Are you being paid for your deposition?

11 A. I am currently being paid because I'm working.

12 Q. Okay. Do you know if your attorneys are being
13 paid to defend your deposition today?

14 A. I do not.

15 Q. Ms. Trejo?

16 A. No, I do not.

17 Q. In talking to your management or supervisors,
18 did you discuss any policies the EAA might have about
19 announcing some position in ongoing litigation between
20 separate third parties?

21 MS. TREJO: I'm going to object to the
22 form of the question. I'll also object to the extent
23 you're calling for a privileged conversation that may
24 have involved counsel --

25 Q. Let me clarify --

1 (Overtalk)

2 Q. Let me clarify, Mr. Bertetti. I'm not asking
3 you what you discussed with your attorneys. I'm asking
4 you what you discussed with your management that did not
5 include attorneys.

6 What do you understand the EAA's policy is
7 about getting involved in ongoing litigation between
8 parties, where they're not a party?

9 MS. TREJO: Same objections.

10 Q. So my -- my discussions included the general
11 manager, Roland Ruiz; our deputy general manager, Marc
12 Friberg, who I believe is an attorney; and my
13 supervisor, Mr. Mark Hamilton.

14 MS. TREJO: So I'm instructing the
15 witness to not answer any communications at which Marc
16 Friberg was present.

17 Q. Mr. Bertetti, how many wastewater discharge
18 cases before the State Office of Administrative Hearings
19 has the Edwards Aquifer Authority participated in? Do
20 you know?

21 A. I do not know.

22 Q. Okay. I think you mentioned you've been there
23 in your current capacity for, what, six years or seven
24 years?

25 A. I've been employed at EAA for seven and a half

1 years.

2 Q. Okay. What did you do before that?

3 A. I worked at Southwest Research Institute.

4 Q. Okay. And did you participate in the 2020
5 report that Ron Green authored?

6 A. I was not a participant in that report.

7 Q. Okay. Are you a member of GEAA?

8 A. I contribute to GEAA, yes.

9 Q. You financially contribute to GEAA. Correct?

10 A. Yes, ma'am.

11 Q. Do you contribute to GEAA in any other ways?

12 A. No, ma'am.

13 Q. Are your supervisors aware that you contribute
14 to GEAA?

15 A. I believe they are, yes.

16 Q. Were they aware of that before your deposition
17 today? Did you specifically make them aware of that
18 before your deposition?

19 A. I know that my direct supervisor is
20 specifically aware of that, yes, and prior to this
21 deposition, yes.

22 Q. Have you been remunerated for your authorship,
23 I guess, with Dr. Green in the various publications that
24 you've co-authored?

25 A. I'm not sure I understood the first part of

1 that question.

2 Q. Have you been paid for any of the publications
3 that you've co-authored with Dr. Green?

4 A. No, not -- not directly. I co-authored
5 publications as part of my employment.

6 Q. I see. Okay. Not personally, then. Correct?

7 A. Correct.

8 Q. How long have you known Dr. Green?

9 MS. TREJO: Objection; relevance, form.

10 Q. You can go ahead.

11 A. I have known Dr. Green since about 1992.

12 Q. Okay. And did you talk to Dr. Green about
13 your deposition today?

14 A. No, I did not.

15 Q. Did you talk to him about the proposed
16 wastewater discharge permit?

17 A. I believe we have had conversations about
18 that, yes, but not (inaudible).

19 THE REPORTER: I'm sorry. I didn't hear
20 the end of that.

21 "I believe we have had conversations about
22 that, yes, but not" --

23 THE WITNESS: That's it.

24 A. I believe we had conversations about that,
25 yes.

1 Q. I'm not asking you to go into painful detail,
2 but what was the subject matter of the conversation,
3 other than the fact that the application had been filed?

4 MS. TREJO: Objection; relevance, form.

5 Q. Did you talk about PFAS? Did you talk about
6 odors? Did you talk about groundwater contamination?

7 A. The majority of our conversations about that,
8 to the best of my recollection, would have been
9 technical in nature, how the system might perform and
10 the relative condition of the system.

11 Q. What do you mean by "system"? The MBR?

12 A. The groundwater system and the surface
13 groundwater interactions.

14 Q. The groundwater system being the subsurface
15 strata or the City of Grey Forest water wells?

16 A. In general, groundwater strata of the Upper,
17 Middle Trinity Aquifers and the Edwards Aquifer.

18 Q. Do you know how far away the closest public
19 wells are to the outfall, proposed outfall?

20 A. No, I do not.

21 Q. Have you reviewed the application?

22 A. I have not.

23 Q. Have you reviewed any pre-filed testimony?

24 A. I have not.

25 Q. Like, for example, have you reviewed Ron

1 Green's testimony or Lauren Ross's testimony?

2 A. I have not.

3 Q. Okay. By the way, do you know Lauren Ross?

4 A. I do not.

5 Q. You don't know her from her involvement in the
6 Liberty Hill matter?

7 A. No, ma'am.

8 Q. Okay. You spoke about the Liberty Hill
9 permit. Correct?

10 A. No, ma'am. I'm not aware about the Liberty
11 Hill permit.

12 Q. Did you participate in a Texas Water Symposium
13 in April of 2024 relating to managed wetlands and water
14 quality in the Hill Country?

15 A. Are you referring to the symposium in
16 Kerrville?

17 Q. Yes.

18 A. If that's what you're referring to, yes, I did
19 participate in that.

20 Q. Okay. You didn't talk about the City of
21 Liberty Hill's wastewater permit?

22 A. I may -- I do not recall directly, but I may
23 have discussed the potential results from that, but I'm
24 not sure I spoke about it directly.

25 Q. Results --

1 A. I'm relatively unfamiliar with that.

2 Q. Okay. Results being the nutrient limit that
3 was imposed by the TCEQ in the permit?

4 A. I don't recall that. I am aware that there
5 were potentially lowered -- requirements for lower
6 discharge concentrations. That's the extent of my
7 knowledge of the Liberty case.

8 Q. Is that something that you've advocated either
9 personally or in your capacity with EAA?

10 A. No, ma'am.

11 Q. Does the EAA, to your knowledge -- not asking
12 for a legal conclusion. I'm just asking, do you know if
13 the EAA has authority to regulate water quality?

14 MS. TREJO: Objection; form.

15 Q. Mr. Bertetti, you can answer the question.

16 A. Yes. Can you repeat that, please.

17 Q. Do you know if the EAA has authority to
18 regulate water quality within its jurisdictional
19 boundaries?

20 A. I am unclear as to what the extent of the
21 authority is. I know that we have a requirement to
22 monitor water quality and to evaluate that. I know that
23 the board has passed rules on limiting coal tar
24 application surface systems near the springs. If that
25 is a function of regulating water quality, then that's

1 the case. Generally, water quality issues for the
2 Edwards Aquifer are regulated by the Texas Commission on
3 Environmental Quality.

4 Q. Do you understand that to be under Chapter 213
5 of the commission's rules?

6 A. What do I understand to be under 213?

7 Q. The TCEQ's rules relating to the Edwards
8 Aquifer.

9 A. If that's where they are, then -- I'm not
10 familiar for sure if that is where those rules are
11 located.

12 Q. Have you never reviewed the TCEQ's Edwards
13 rules?

14 A. I have.

15 MS. TREJO: Form.

16 A. I'm not -- not familiar with their location in
17 the statute.

18 Q. Okay. Have you ever attended the annual
19 Edwards hearing/meeting that the commission's required
20 to have under the water code?

21 MS. TREJO: Objection; relevance.

22 A. No, I have not attended that meeting.

23 Q. Do you know what I'm talking about? They're
24 held in San Antonio, they're held in Austin, wherever
25 the Edwards Recharge, Contributing, or Transition Zone

1 is?

2 MS. TREJO: Objection; form.

3 A. Normally that's not part of my area of
4 responsibility. So, no, I have not attended them.

5 Q. Have you taken any positions personally or in
6 your capacity with EAA that surface wastewater
7 discharge -- strike that question.

8 In your personal capacity or with the EAA,
9 have you ever taken a position that discharges of
10 treated wastewater should be prohibited over the
11 contributing zone?

12 MS. TREJO: Objection; form and
13 relevance.

14 A. No, I have not taken a position that
15 wastewater discharges should be prohibited over the
16 contributing zone.

17 Q. Do you have an opinion about it?

18 A. Say again.

19 Q. Do you have an opinion about it?

20 MS. TREJO: Objection; form.

21 A. My opinion is that wastewater discharges
22 should be treated to have the best-quality effluent as
23 possible.

24 Q. Okay. So discharges may be allowed so long as
25 they have appropriate standards, but they shouldn't be

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1 prohibited entirely; is that what you're saying?

2 MS. TREJO: Objection; form and
3 relevance.

4 A. My personal opinion, based on my experience,
5 is that I do not have evidence to support prohibiting
6 discharge entirely over the contributing zone.

7 Q. Were you aware that your co-author,
8 Dr. Green -- by the way, do you consider yourselves to
9 be friends personally, professionally?

10 MS. TREJO: Objection; relevance.
11 Objection; form.

12 I mean, how much longer is this going to go
13 on? Because we didn't seek a protective order because
14 this was represented to be a very short thing about some
15 very high-level things. But this is sort of ranging
16 into you on a fishing expedition for everything that
17 Mr. Bertetti thinks and all his relations and all his
18 friends. He does have a job to do.

19 We may have to instruct -- we may have to --

20 MS. GILBERT: Deborah --

21 MS. TREJO: -- go to the ALJ and seek a
22 protective order for this becoming harassing and an
23 undue burden.

24 MS. GILBERT: Deborah, we filed a motion
25 to quash this deposition. We don't believe

1 Mr. Bertetti's testimony is relevant to this proceeding.
2 You're right; he wasn't disclosed as a witness.
3 However, his name appears on many of the publications
4 that Ron Green has identified. And PFAS and nutrients
5 are very germane to this hearing. We agree with you.
6 We don't think Mr. Bertetti should be here, either. But
7 I didn't schedule his deposition today. Eric Allmon
8 did. And Eric represented that it would be a short
9 deposition. It was also notified from day to day until
10 it's concluded.

11 So with that, I'd like to conclude the
12 deposition. And the longer that you object to the form
13 of every single question, I guess we're going to be here
14 longer.

15 But everything that Mr. Bertetti -- I mean,
16 obviously you can predict that Mr. Bertetti's deposition
17 will be used at hearing, with Mr. Green and the other
18 experts. And so whether he's there in person or not in
19 person, his words in this deposition today will be put
20 forward as some sort of support for more regulation of
21 PFAS or nutrients or other analytes. And so this is
22 very germane to the subject matter. And this was the
23 Protestants, City of Grey Forest, where Mr. Bertetti
24 testified earlier today EAA has done all this sampling
25 including certain hits and sampling of PFAS.

1 MS. TREJO: Okay. So your position is
2 it's not relevant and not admissible, but you're now
3 seeking to do all this testimony about why it's not
4 relevant.

5 MS. GILBERT: I'm not the person that
6 makes that ruling. You know that the --

7 MS. TREJO: So I think at this point -- I
8 think at this point we -- I need to have my witness --
9 we need to seek relief from the tribunal, because at
10 this point it is becoming harassing and an undue burden.
11 We're entitled to seek relief for a protective order if
12 a deposition becomes harassing or an undue burden.

13 So I think if this is continuing and you're
14 going to, you know, subject Mr. Bertetti to this, you
15 know, barrage of questions of all these different
16 background topics, then --

17 MS. GILBERT: I'm asking --

18 MS. TREJO: -- we're well outside the
19 scope of what was represented to him that the deposition
20 was going to be about.

21 MS. GILBERT: I never talked to
22 Mr. Bertetti about --

23 (Overtalk)

24 MS. GILBERT: -- what this deposition was
25 about. Clearly, Mr. Allmon or the GEAA representatives

1 did. Okay. I was asking him and about to get to his
2 position and the Edwards Aquifer Authority's position on
3 the contributing zone.

4 Dr. Green has been very emphatic in his
5 pre-filed testimony that the contributing zone has no
6 distinction apart from the recharge zone. And as you
7 know, discharges over the recharge zone are prohibited.
8 So it's very important that I understand what the EAA's
9 position about Chapter 213 and those prohibitions is.

10 And to the extent that this witness has
11 co-authored publications with Dr. Green, and Dr. Green
12 has made those printouts, and Dr. Green is going to be
13 offered as an expert witness, it is important for me to
14 know the basis of Mr. Bertetti's knowledge.

15 MS. TREJO: Right.

16 MS. GILBERT: I'll withdraw the question
17 about his friendship with Dr. --

18 MS. TREJO: I think this has gone way,
19 way, way too far, and I think that to the extent that
20 you're now trying to establish the EAA's positions on a
21 whole series of things, which was not part of what
22 Mr. Allmon asked about -- you're trying to establish all
23 kinds of testimony right now from Mr. Bertetti about the
24 EAA and its positions on this and that. That's
25 really --

1 MS. GILBERT: He's here on behalf of the
2 EAA today, notwithstanding Eric's statements in his
3 motion or his response to the motion.

4 MS. TREJO: Mr. Bertetti works for the
5 EAA.

6 (Overtalk)

7 MS. GILBERT: It's very unusual --

8 MS. TREJO: Okay. Let's just --

9 (Overtalk)

10 MS. TREJO: -- and I will file a motion
11 for protective order with the ALJ to seek relief from
12 any further deposition testimony from Mr. Bertetti.

13 This has gone well beyond what the scope of
14 the questions asked were, and now you're getting into
15 whole other areas.

16 MS. GILBERT: There is no scope of
17 questions established, Deborah. I'm allowed --

18 MS. TREJO: We are entitled to seek
19 relief to not have our client deposed. And this has
20 now, I think, gone into a whole other thing where you're
21 trying to collaterally bring in all this testimony.

22 MS. GILBERT: The Protestant --

23 MS. TREJO: It's improper, and it seems
24 to have risen to the level of being harassment of the
25 witness.

1 MS. GILBERT: So let me just establish
2 that the Protestant, who represents a party to which
3 Mr. Bertetti has made financial contribution and is a
4 member of, can ask the witness questions. But I'm not
5 allowed to ask questions about the contributing and
6 recharge zone of the Edwards Aquifer, over whose
7 jurisdiction you are singularly given responsibility,
8 and the Protestants are? That's incomprehensible.

9 MS. TREJO: I'm not going to argue with
10 you right now. I don't think that serves any purpose.
11 I think that you have exceeded what is reasonable in
12 terms of the scope of the questions you were asking
13 Mr. Bertetti, and I think it is harassing. We are a
14 third party. We are not part of this dispute. We are
15 not a party to the contested case.

16 You are not -- you are asking a whole lot of
17 questions that are not related to, you know, the very
18 much more narrow questions that were asked before.

19 MS. GILBERT: Hey, Deborah, they all go
20 to the fact initially --

21 (Overtalk)

22 MS. GILBERT: -- that he offered --

23 (Overtalk)

24 MS. TREJO: Mr. Bertetti, let's jump off
25 the call. We're leaving the deposition at this point.

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1 We will file a motion for protective order at the ALJ.

2 Paul, I'll wait for you to get off, and then
3 I'll get off.

4 (The witness and Ms. Trejo leave Zoom)

5 THE REPORTER: Are we off the record?

6 MR. ALLMON: I think that we seem to be
7 done here for today.

8 (Proceedings adjourned at 3:16 p.m.)

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1 CHANGES AND SIGNATURE

2 WITNESS NAME: F. PAUL BERTETTI
3 DEPOSITION DATE: FEBRUARY 10, 2025
3 PAGELINE CHANGE/REASON

4 _____

5 _____

6 _____

7 _____

8 _____

9 _____

10 _____

11 _____

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23 _____

24 I, F. PAUL BERTETTI, have read the foregoing
25 deposition and hereby affix my signature that same is

53

1 true and correct, except as noted above.

2

3

4 STATE OF _____ x

SIGNATURE OF WITNESS

5 COUNTY OF _____ x

6

7 Before me, _____, on this day
8 personally appeared F. PAUL BERTETTI, known to me (or
9 proved to me under oath or through _____)
10 (description of identity card or other document) to be
11 the person whose name is subscribed to the foregoing
12 instrument and acknowledged to me that they executed the
13 same for the purposes and consideration therein
14 expressed.

15 GIVEN UNDER MY HAND AND SEAL of office this
16 _____ day of _____, 2025.

17

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25

(Seal)

Notary Public in and for the
State of _____.

1 SOAH DOCKET NO. 582-25-01778
2 TCEQ DOCKET NO. 2024-0670-MWD

3 APPLICATION BY MUNICIPAL § BEFORE THE STATE OFFICE
4 OPERATIONS LLC FOR NEW §
5 TEXAS POLLUTANT DISCHARGE § OF
6 ELIMINATION SYSTEM PERMIT §
7 NO. WQ0016171001 § ADMINISTRATIVE HEARINGS

8 REPORTER'S CERTIFICATION

9 REMOTE ORAL DEPOSITION OF F. PAUL BERTETTI

10 FEBRUARY 10, 2025

11 I, Angela L. Mancuso, Certified Shorthand Reporter
12 in and for the State of Texas, hereby certify to the
13 following:

14 That the witness, F. PAUL BERTETTI, located in
15 San Antonio, Texas, was duly sworn by the officer and
16 that the transcript of the oral deposition is a true
17 record of the testimony given by the witness;

18 That the original deposition was delivered to
19 Ms. Deborah C. Trejo for examination and signature by
20 the witness;

21 I further certify that the signature of the
22 deponent was requested by the deponent or a party before
23 the completion of the deposition and that the signature
24 is to be before any notary public and returned within 20
25 days from date of receipt of the transcript. If
returned, the attached Changes and Signature page
contains any changes and the reasons therefor.

55

1 I further certify that I am neither attorney or
2 counsel for, nor related to or employed by, any of the
3 parties to the action in which this deposition is taken,
4 and further that I am not a relative or employee of any
5 attorney or counsel employed by the parties hereto, or
6 financially interested in the action, and that I
7 reported this deposition from my office in Keller,
8 Texas.

Angela L. Mancuso

ANGELA L. MANCUSO, CSR 4514
Expiration Date: 10/31/26
Stryker Reporting
Firm Registration No. 806
1450 Hughes Road, Suite 230
Grapevine, Texas 76051
(817) 494-0700

EXHIBIT C

**SOAH DOCKET NO. 582-25-01778
TCEQ DOCKET NO. 2024-0670-MWD**

**APPLICATION BY MUNICIPAL
OPERATIONS LLC FOR NEW TEXAS
POLLUTANT DISCHARGE
ELIMINATION SYSTEM PERMIT NO.
WQ0016171001 § BEFORE THE STATE OFFICE
OF
ADMINISTRATIVE HEARINGS**

EXHIBIT GEAA-123
(OFFER OF PROOF)

IN THE DISTRICT COURT OF
JOHNSON COUNTY, TEXAS

STATE OF TEXAS, § DISTRICT COURT
§ JUDICIAL DISTRICT Johnson County - 18th District
Plaintiff, §
§ CAUSE NO.
v. § DC-C202400996
§
3M COMPANY; CORTEVA, INC., DUPONT §
DE NEMOURS, INC., and EIDP, INC. F/K/A §
E. I. DU PONT DE NEMOURS AND §
COMPANY, §
§
Defendants. §

PLAINTIFF'S ORIGINAL PETITION

TO THE HONORABLE DISTRICT JUDGE:

Plaintiff, STATE OF TEXAS, acting by and through the Attorney General of Texas, KEN PAXTON (the “State”), complains of Defendants 3M COMPANY (“3M”); CORTEVA, INC. (“Corteva”); DUPONT DE NEMOURS AND CO., INC. (“New DuPont”); and EIDP, INC. F/K/A E. I. DU PONT DE NEMOURS AND COMPANY (“Old DuPont”) (collectively, “Defendants”) and would respectfully show Defendants have engaged in deceptive trade practices by failing to disclose health risks and environmental harms associated with their products, and representing and/or implying their products were “safe” in a false, deceptive, or misleading manner, in violation of the Texas Deceptive Trade Practices–Consumer Protection Act, Tex. Bus. & Com. Code §§ 17.41–17.63 (“DTPA”).

INTRODUCTION

1. For decades, Defendants manufactured, marketed, and sold a wide array of consumer products containing per- and polyfluoroalkyl substances (“PFAS”), including perfluorooctane sulfonic acid (“PFOS”) and perfluorooctanoic acid (“PFOA”). Defendants

OFFER OF PROOF

marketed these products in Texas and elsewhere to consumers as having remarkable benefits such as resistance to heat, oil, stains, grease, and water. Defendants' PFAS-containing materials included products used in or on food packaging, carpeting, cookware, upholstery, cosmetics, and many other consumer products, which Defendants sold to Texas consumers under well-known brand names including Teflon® and Scotchgard®.

2. But Defendants knew for much of this time, during which they profited immensely from the sale of their products, that PFAS pose risks to people's health and impact the environment. For example, PFAS are "persistent, bioaccumulative and toxic" ("PBT"), and exposure in humans may be associated with diseases such as cancer and decreased vaccine response. Further, PFAS, once introduced into the environment, accumulate in fish, game, and other animal and plant life, contaminate drinking water and other natural resources, and accumulate in the blood of humans. Defendants knew of these risks, knew they could not contain PFAS in their consumer products, and – as early as the 1970s – knew that their PFAS chemistry was already building-up in the blood of most Americans. Nonetheless, Defendants concealed these substantial risks from consumers and the State, and for decades, they even affirmatively claimed their products were "safe."

I. DISCOVERY

3. The discovery in this case should be conducted under Level 3 pursuant to Texas Rule of Civil Procedure 190.4.

4. This case is not subject to the restrictions of expedited discovery under Texas Rule of Civil Procedure 169 because the State's claims include non-monetary injunctive relief.

5. In addition to the claims for non-monetary injunctive relief, the State seeks monetary relief of \$1,000,000 or more, including civil penalties, attorneys' fees, and costs.

II. JURISDICTION

6. This action is brought by the Attorney General, Ken Paxton, in the name of the State of Texas, through his Consumer Protection Division and in the public interest under the authority granted by § 17.47 of the DTPA upon the grounds that Defendants have engaged in false, deceptive, and misleading acts and practices in the course of trade and commerce as defined in, and declared unlawful by, §§ 17.46(a) and (b) of the DTPA. In enforcement suits filed pursuant to § 17.47 of the DTPA, the Attorney General is further authorized to seek civil penalties, redress for consumers, and injunctive relief. The Attorney General may also seek reasonable attorneys' fees and court costs for prosecuting this action, as authorized by Texas Government Code § 402.006(c).

III. SCOPE OF THIS ACTION

7. Through this action, the State is not seeking any relief with respect to the manufacture, marketing, or sale of Aqueous Film-Forming Foam—a specific category of products that contain PFAS—as that is the subject of a separate action.

IV. DEFENDANTS

8. Defendant 3M Company is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 3M Center, St. Paul, Minnesota 55144-1000. 3M is registered to do business in Texas and may be served through Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701-3136, or wherever it may be found.

9. Defendant EIDP, Inc. (*i.e.*, Old DuPont), f/k/a E. I. du Pont de Nemours and Company, is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business located at 974 Centre Road, Wilmington, Delaware 19805 and

9330 Zionsville Road, Indianapolis, Indiana. In 2015, facing billions of dollars in liabilities arising from its use of PFAS, Defendant Old DuPont began engaging in a series of transactions meant to distance its valuable assets from the liability created by its actions in unleashing and marketing these products to the public, ultimately resulting in the creation of New DuPont and Corteva. Old DuPont may be served through the Texas Secretary of State, P.O. Box 12079, Austin, Texas 78711.

10. Defendant DuPont de Nemours, Inc., d/b/a DuPont (*i.e.*, New DuPont), is a Delaware corporation with its principal place of business located at 974 Centre Road Building 730, Wilmington, Delaware 19805. In 2015, Old DuPont created New DuPont to facilitate a merger with third party The Dow Chemical Company (“Old Dow”) and serve as a holding company for the combined assets of the two companies. In connection with a series of subsequent transactions in 2019, New DuPont assumed certain Old DuPont liabilities—including those relating to PFAS. New DuPont does business throughout the United States, including in the State of Texas. New DuPont may be served through the Texas Secretary of State, P.O. Box 12079, Austin, Texas 78711.

11. Defendant Corteva, Inc. is a corporation organized and existing under the laws of the State of Delaware, with its principal places of business located at 974 Centre Road, Wilmington, Delaware 19805 and 9330 Zionsville Road, Indianapolis, Indiana 46268. In 2019, New DuPont spun off a new, publicly traded company, Corteva, which currently holds Old DuPont as a subsidiary. In connection with this transfer, Corteva assumed certain of Old DuPont’s liabilities—including those relating to PFAS. Corteva is registered to do business in Texas and may be served through CT Corporation System, 1999 Bryan Street, Ste. 900, Dallas, Texas 75201-3136, or wherever it may be found.

V. VENUE

12. Venue of this suit lies in Johnson County, Texas, pursuant to DTPA § 17.47(b), because transactions forming the basis of this suit occurred in Johnson County, Texas, and Defendants have done business in Johnson County, Texas.

VI. PUBLIC INTEREST

13. Plaintiff has reason to believe that Defendants are engaging in, have engaged in, or are about to engage in, the unlawful acts or practices set forth below. Plaintiff has further reason to believe Defendants have caused injury, loss, and damage to the State of Texas, and have caused adverse effects to the lawful conduct of trade and commerce, thereby directly or indirectly affecting the people of this State. The allegations herein focus on two specific types of PBT PFAS—PFOS and PFOA.

14. PFOS exposure is associated with numerous adverse health effects in humans, including increases in serum lipids (*i.e.*, high cholesterol); decreases in antibody response to vaccines; increases in risk of childhood infections; adverse reproductive and developmental effects; and pregnancy-induced hypertension and preeclampsia. PFOA exposure is associated with, among other things, decreased birthweight, testicular and kidney cancers, ulcerative colitis, medically diagnosed high cholesterol, and thyroid disease.

15. Therefore, the Consumer Protection Division of the Office of the Attorney General of the State of Texas is of the opinion that these proceedings are in the public interest.

VII. TRADE AND COMMERCE

16. Defendants have, at all times described below, engaged in trade and commerce as defined by § 17.45(6) of the DTPA.

VIII. ACTS OF AGENTS

17. Whenever in this Petition it is alleged that Defendants did any act, it is meant that Defendants performed or participated in the act or Defendants' officers, agents, or employees performed or participated in the act on behalf of and under the authority of Defendants.

IX. APPLICABLE LAW

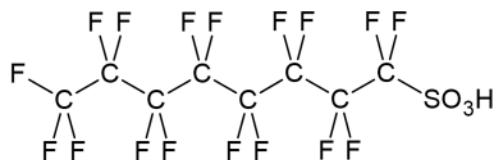
18. The DTPA prohibits "false, misleading, or deceptive acts or practices in the conduct of any trade or commerce." DTPA § 17.46(a).

19. Section 17.47 of the DTPA authorizes the Consumer Protection Division to bring an action for temporary and permanent injunction whenever it has reason to believe that any person is engaged in, has engaged in, or is about to engage in any act or practice declared unlawful by the DTPA.

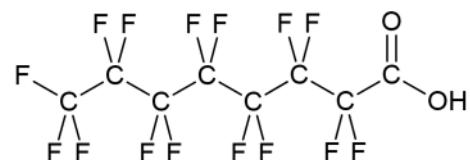
X. FACTUAL ALLEGATIONS

PFOS and PFOA

20. PFAS are a family of human-made chemical compounds containing a carbon chain on which all hydrogen atoms are replaced by fluorine atoms. The carbon-fluorine bond is the strongest bonds in organic chemistry and the many carbon-fluorine bonds in PFAS impart their unique chemical properties. Figure 1 below shows the chemical structures of PFOS and PFOA.



Perfluorooctane Sulfonic Acid ("PFOS")



Perfluorooctanoic Acid ("PFOA")

Figure 1

21. 3M developed PFOS and PFOA in the 1940s. Old DuPont, in 1951, began manufacturing products containing PFOA. Old DuPont purchased PFOA from 3M.

22. Defendants marketed products containing harmful PFAS chemicals for over 70 years and were aware of the harmful effects of PFAS chemicals for over 50 years. Despite this knowledge, Defendants continued to market PFAS products and chemicals in Texas and elsewhere as safe for consumer use, misrepresent their environmental and biological risks, and conceal risks of harm from the public.

23. For decades, advertisements included images of family home life in and around these products, were marketed to women cooking for their families, and specifically promoted the value of the products for households with children and pets. These advertisements did not disclose material information regarding the harms of the chemicals, and through the context and claims of the advertisements, misrepresented their safety for household and family use.

Defendants' Manufacture, Marketing, and Sale of PFAS-Containing Products

Old DuPont's Deception Relating to PFAS Products

24. Old DuPont began using PFOA and other PFAS in its specialty chemical production applications, including household applications and products, like Teflon® and Stainmaster®. Old DuPont advertised Teflon® as a protective non-stick coating for cookware and Stainmaster® as a soil and stain repellent for fabrics and textile products. For instance, Old DuPont released Stainmaster® Carpet in 1986. Old DuPont advertised this product as being helpful for families with children and pets, which is particularly concerning due to the additional exposure for children, who spend more time on or near the floor.

25. Old DuPont also manufactured and advertised Zonyl® as a cheaper and less labor-intensive alternative to wax-paper food packaging beginning in the 1960s. On information and State of Texas v. 3M Company, et al.
Plaintiff's Original Petition

belief, this material has been used for fast food packaging and microwave popcorn bags, among other consumer uses.

26. On information and belief, the Teflon® PTFE chemical has been used in a wide variety of cosmetics, to make them long-lasting and easier to apply.

27. As early as the 1960s, Old DuPont was aware that PFOA is toxic to animals and humans and that it bioaccumulates and persists in the environment. Old DuPont also knew that Teflon®, and associated industrial facilities, emitted and discharged large quantities of PFOA and other PFAS into the environment and that many people had been exposed to its PFAS, including via public and private drinking water supplies. Yet, it continued to develop and market products for consumers as safe and without revealing this knowledge that would have been material information to consumers' purchasing decisions.

28. Old DuPont's scientists issued internal warnings about PFOA toxicity as early as 1961, including warnings that PFOA caused adverse liver reactions in rats and dogs. Old DuPont's Toxicology Section Chief opined that such products should be "handled with extreme care" and that contact with the skin should be "strictly avoided." However, advertisements from the 1970s promoted family and household use of Teflon® pans through "women [who] test[ed] pans like these in their own homes"—touting the "preference" of Teflon® by these women and the implied safety for family and household use while failing to disclose the already known dangers associated with PFAS.

29. In 1978, based on information it received from 3M about elevated and persistent organic fluorine levels in workers exposed to PFOA, Old DuPont initiated a plan to review and monitor the health conditions of potentially exposed workers to assess whether any negative

health effects were attributable to PFOA exposure. This monitoring plan involved obtaining and analyzing the blood samples from its workers for the presence of fluorine.

30. By 1979, Old DuPont had data indicating that, not only was organic fluorine/PFOA building up in the blood of its exposed workers (and was, thus, “biopersistent”), but those workers exposed to PFOA had a significantly higher incidence of health issues than did unexposed workers. Old DuPont did not share this data or the results of its worker health analysis with the general public or government entities, including the State of Texas, at that time.

31. The following year, Old DuPont internally confirmed, but did not make public, that PFOA “is toxic,” that humans accumulate PFOA in their tissues, and that “continued exposure is not tolerable.”

32. At around this same time, Old DuPont, on information and belief, was releasing advertisements encouraging families not to worry, because they had Teflon® carpet protector.



33. Not only did Old DuPont know that PFOA accumulated in humans, it was also aware that PFOA could cross the placenta from an exposed mother to her gestational child. In 1981, Old DuPont conducted a blood sampling study of pregnant or recently pregnant employees. Of the eight women in the study who worked with Teflon®, two—or 25%—had children with

birth defects in their eyes or face, and at least one had PFOA in the umbilical cord. Instead of addressing this concern, in the same year Old DuPont communicated to its employees that “there is no known evidence that our employees have been exposed to C8 levels that pose adverse health effects.” C8 refers to PFAS like PFOA and PFOS with an eight-carbon chain structure. It also quietly moved female employees away from areas where PFAS may have been present.

34. Old DuPont selectively reported to the United States Environmental Protection Agency (“EPA”) in March of 1982 that results from a *rat* study showed PFOA crossing the placenta if present in maternal blood, but Old DuPont concealed the results of its own study of its *human* workers.

35. Not only did Old DuPont know about PFOA’s toxicity danger as early as the 1960s, but it was also aware that PFAS were capable of contaminating the surrounding environment, leading to human exposure. For example, no later than 1984, Old DuPont was aware that PFOA released from its manufacturing operations was contaminating local drinking water supplies, but said nothing to regulators or the impacted communities.

36. Old DuPont was long aware that the PFAS it was releasing from its facilities could leach into groundwater used for public drinking water—a fact that could both impact its corporate image, as discussed below, and materially impact consumers’ purchasing decisions. Old DuPont held a meeting at its corporate headquarters in Wilmington, Delaware in 1984 to discuss health and environmental issues related to PFOA, and employees spoke of the PFOA issue as “one of corporate image, and corporate liability.” They were resigned to Old DuPont’s “incremental liability from this point on if we do nothing” because Old DuPont was “already liable for the past 32 years of operation.” They also stated that the “legal and medical [departments within Old DuPont] will likely take the position of total elimination” of PFOA use

in Old DuPont's business and that these departments had "no incentive to take any other position." Nevertheless, Old DuPont not only decided to keep using and releasing PFOA, marketing brands containing PFOA, but affirmatively misrepresented to regulators, the scientific community, and the public that its PFOA releases presented no risks to human health or the environment.

PERSONAL & CONFIDENTIAL

TO: T. M. KEMP
T. L. SCHRENK

FROM: J. A. SCHMID

C-8 MEETING SUMMARY
5/22/84 - WILMINGTON

THE REVIEW WAS HELD WITH BESPERKA, BENNETT, RIDDICK, GLEASON, HEGENBARTH, SERENBETZ, RAINES, KENNEDY, VON SCHRILTZ, AND INSALLS IN ATTENDENCE. COPIES OF THE CHARTS USED ARE ATTACHED.

THERE WAS A CONSENSUS THAT C-8, BASED ON ALL THE INFORMATION AVAILABLE FROM WITHIN THE COMPANY AND FROM 3M, DOES NOT POSE A HEALTH HAZARD AT LOW LEVEL CHRONIC EXPOSURE.

THERE WAS AGREEMENT THAT A DEPARTMENTAL POSITION NEEDED TO BE DEVELOPED CONCERNING THE CONTINUATION OF WORK DIRECTED AT ELIMINATION OF C-8 EXPOSURES OFF PLANT AS WELL AS TO OUR CUSTOMERS AND THE COMMUNITIES IN WHICH THEY OPERATE.

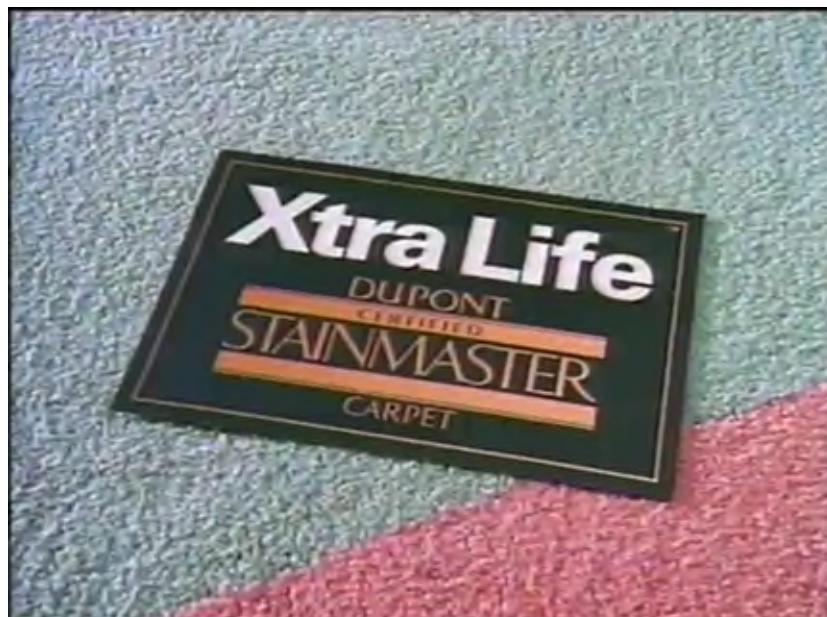
THERE WAS CONSENSUS REACHED THAT THE ISSUE WHICH WILL DECIDE FUTURE ACTION IS ONE OF CORPORATE IMAGE, AND CORPORATE LIABILITY. LIABILITY WAS FURTHER DEFINED AS THE INCREMENTAL LIABILITY FROM THIS POINT ON IF WE DO NOTHING AS WE ARE ALREADY LIABLE FOR THE PAST 32 YEARS OF OPERATION. CORPORATE IMAGE DISCUSSION CENTERED AROUND THE PERCEIVED DILIGENCE VERSUS OUR POLICIES IF WE ELECTED TO STOP WORK.

CURRENTLY, NONE OF THE OPTIONS DEVELOPED ARE, FROM A FINE POWDER BUSSNESS STANDPOINT, ECONOMICALLY ATTRACTIVE AND WOULD ESSENTIALLY PUT THE LONG TERM VIABILITY OF THIS BUSSNESS SEGMENT ON THE LINE. FROM A BROADER CORPORATE VIEWPOINT THE COSTS ARE SMALL.

THE BASIS FOR A DECISION AT THIS POINT IS SUBJECTIVE AND IS MADE MORE DIFFICULT BY OUR CURRENT UNDERSTANDING OF TECHNOLOGY AND COST, AND THE IMPACT ON THE FINE POWDER BUSSNESS. IT'S NOT AN EASY AND OBVIOUS DECISION AS FOR EXAMPLE TBSA WAS.

RJZ/009986

37. Despite knowledge of potential health hazards and contamination, Old DuPont introduced Stainmaster® carpet to the public in 1986, spending \$10 million on the first campaign of national advertisements. Old DuPont marketed Stainmaster® carpet as safe for families and targeted families with babies in particular, through advertisements such as those below, whose misleading messages DuPont aimed to get into every American household.





**Stainmaster Xtra Life.
You Don't Have to Baby It.**

Xtra Life
DUREON
STAINMASTER
CARPET

Now there really is a carpet that passes the Terrible Toddler Test – yet looks good enough for any room. Stainmaster Xtra Life Carpet stands up to foot traffic better because it resists matting and crushing*. It has superior stain resistance, too. It's certified and warranted by DuPont*. And it comes in a wide range of styles and colors. See it today. And remember: it never has to be babied.

*DuPont and DuPont logo. DuPont is a registered trademark of E.I. du Pont de Nemours and Company, Inc. © 1990 E.I. du Pont de Nemours and Company, Inc.

BARRY DECORATORS Haddonfield, NJ (800) 429-5044 Cherry Hill, NJ (800) 795-0766	FEASTERVILLE FLOOR COVERING 418 W. Street Road Feasterville, PA (215) 358-2510	PALA TILE & CARPET 1804 Kinnelon Highway Wilmington, DE (302) 996-0585
BOB WAGNER'S MILL CARPET Downingtown, PA (215) 269-7808 West Chester, PA (215) 436-4004	LOMAX RUG CO. & NO WAX VINYL OUTLET 2940 Jasper Street Philadelphia, PA (215) 739-8110	ROY LOMAS CARPET 2150 Germakiller Road Kirkville, PA (215) 256-9575



38. However, infants and toddlers in homes with Stainmaster® carpets are consistently exposed to PFAS. According to the Centers for Disease Control and Prevention, infants and toddlers are at increased risk of ingesting these chemicals through hand to mouth transfer of PFAS from carpets. Similarly, the EPA reported that children are particularly susceptible to inhaling PFAS in carpets, with inhalation levels reaching 32,500 pg/cm³.

39. Old DuPont also continued to advertise its Teflon® brand for household use, touting nonstick benefits but failing to disclose to consumers the serious adverse effects of PFAS. On information and belief, the advertisements below are from the 1990s.





40. In 2000, the email below from Old DuPont employees demonstrated that the company was aware that biopersistence is an important consumer issue due to “an overwhelming public attitude that anything biopersistent is harmful,” yet they continued to conceal the biopersistence of PFAS in chemical products such as Teflon®.

John R Bowman
11/09/2000 05:04 PM

To: Thomas L Sager/AE/DuPont@DuPont, Martha L Rees/AE/DuPont@DuPont
cc: Bernard J Reilly/AE/DuPont@DuPont
Subject: Lubeck-Dawn Jackson note

In view of the interest the letter is getting I think we need to make more of an effort to get the business to look into what we can do to get the Lubeck community a clean source of water or filter the C-8 out of the water. I spent a good bit of time over the past two days talking to an in house lawyer from Exxon and Chris Gibson from Archer and Greiner about their experience in defending MTBE water contamination suits. They both told me that experience has told them it is less expensive and better to remediate or find clean drinking water for the plaintiffs than fight these suits. I think we are more vulnerable than the MTBE defendants because many states have adopted a drinking water guideline for MTBE and it is not biopersistent. My gut tells me the biopersistence issue will kill us because of an overwhelming public attitude that anything biopersistent is harmful.

We are going to spend millions to defend these lawsuits and have the additional threat of punitive damages hanging over our head. Getting out in front and acting responsibly can undercut and reduce the potential for punitives. Bernie and I have been unsuccessful in even engaging the clients in any meaningful discussion of the subject. Our story is not a good one, we continued to increase our emissions into the river in spite of internal commitments to reduce or eliminate the release of this chemical into the community and the environment because of our concern about the biopersistence of this chemical.

41. Old DuPont also began to assemble a litigation defense team, which included hiring an outside consulting company called the Weinberg Group. In a 2003 letter to Old DuPont, the Weinberg Group recommended that Old DuPont “implement a strategy at the outset which discourages government agencies, the plaintiff’s bar, and misguided environmental groups from pursuing this matter any further” The strategy would include “facilitating the publication of papers and articles dispelling the alleged nexus between PFOA and teratogenicity as well as other claimed harm” and “establish[ing] not only that PFOA is safe over a range of serum concentration levels, but that it offers real health benefits”

42. In 2004, EPA filed an administrative enforcement action against Old DuPont based on its failure to disclose toxicity and exposure information for PFOA in violation of the federal Toxic Substances Control Act (“TSCA”) and Resource Conservation and Recovery Act (“RCRA”). Old DuPont eventually settled the lawsuit by agreeing to pay over \$16 million in civil

administrative penalties and conduct supplemental environmental projects. EPA called the settlement the “largest civil administrative penalty EPA has ever obtained under any federal environmental statute.”

43. Old DuPont’s own Epidemiology Review Board (“ERB”) repeatedly raised concerns about Old DuPont’s statements to the public that there were no adverse health effects associated with human exposure to PFOA. For example, in February 2006, the ERB “strongly advise[d] against any public statements asserting that PFOA does not pose any risk to health” and questioned “the evidential basis of [Old DuPont’s] public expression asserting, with what appears to be great confidence, that PFOA does not pose a risk to health.”

44. In February 2006, the New York Times noted that DuPont ran full page advertisements in its newspaper and other newspapers continuing to state that Teflon® is safe. Below is the advertisement, which claims that Teflon® has been “safely used for 40 years” and continues to omit that PFOA exposure was known to Old DuPont to cause harm to humans.

THE NEW YORK TIMES, FRIDAY, FEBRUARY 3, 2006

A9

**Teflon®
Non-Stick Coating
is Safe.**

Convenient. Tested. Trusted.

The facts are these:

- Your cookware coated with Teflon® non-stick is safe. Cookware coated with Teflon® has been safely used for more than 40 years.
- Cookware with Teflon® non-stick coating shows no detectable levels of PFOA, according to independent studies and published research conducted under normal cooking conditions. There has been a lot of confusion about PFOA, a common chemical used in the manufacture of non-stick coatings. Cooking with pans coated with Teflon® non-stick does not release PFOA into your food.
- The government is studying PFOA, not Teflon®. DuPont has been recognized by the U.S. Environmental Protection Agency for our leadership in reducing PFOA emissions. The EPA has consistently said there is no reason to stop using non-stick cookware.

Trust the brand that has been used in homes for over 40 years: Teflon®. To learn more, please go to Teflon.com.

DU PONT
The miracles of science™

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45. Despite its knowledge regarding PFOA's toxicity, Old DuPont continued to claim that PFOA posed no health risks. On information and belief, Old DuPont continued to market and sell Teflon® containing PFOA until 2007. Old DuPont knew these statements were not true but did not correct them.

46. Old DuPont advertised consumer brands using PFAS chemicals as safe for home use in a variety of contexts. On information and belief, all of the advertisements throughout this section promoted products containing PFAS chemicals. The advertisements, which include television advertisements, range in time from the 1960s to the early 2000s.

3M's Deception Related to PFAS Products

47. 3M has known for decades that the PFAS contained in its products, such as PFOS, are toxic and adversely affect the environment and human health. Despite this knowledge, 3M has advertised brands, such as Scotchgard, as consumer-friendly and safe for families.

48. 3M advertised Scotchgard Protector in the mid-1950s as a coating that could be used to protect fabrics from water and other fluids. From 1970 to 2002, paper and carpet treatments were the most common use of PFOS substances.

49. On information and belief, 3M's Scotchban paper protector was used for non-food packaging as early as the 1950s, and was later used in food paper packaging around 1970. Paper mills would apply Scotchban solution to make paper cups, cake mixes, pet food, and more as the grease and water resistant chemicals would not impact the appearance or other properties of the paper.

50. By 1956, 3M's PFAS were found to bind to proteins in human blood, resulting in bioaccumulation of those compounds in the human body. 3M knew as early as 1960 that its PFAS waste could leach into groundwater and otherwise enter the environment. An internal 3M

memorandum from 1960 described 3M's understanding that such wastes “[would] eventually reach the water table and pollute domestic wells.” As early as 1963, 3M knew that its PFAS were highly stable in the environment and did not degrade after disposal. Despite this knowledge, 3M continued to market its products to customers, misrepresented them as safe for household and family use, and failed to disclose information regarding potential health and environmental issues to consumers to make educated purchasing decisions.

51. For instance, this advertisement from 1961 promotes the benefits of Scotchgard products to families and children in the household without disclosing the known pollutant effects.

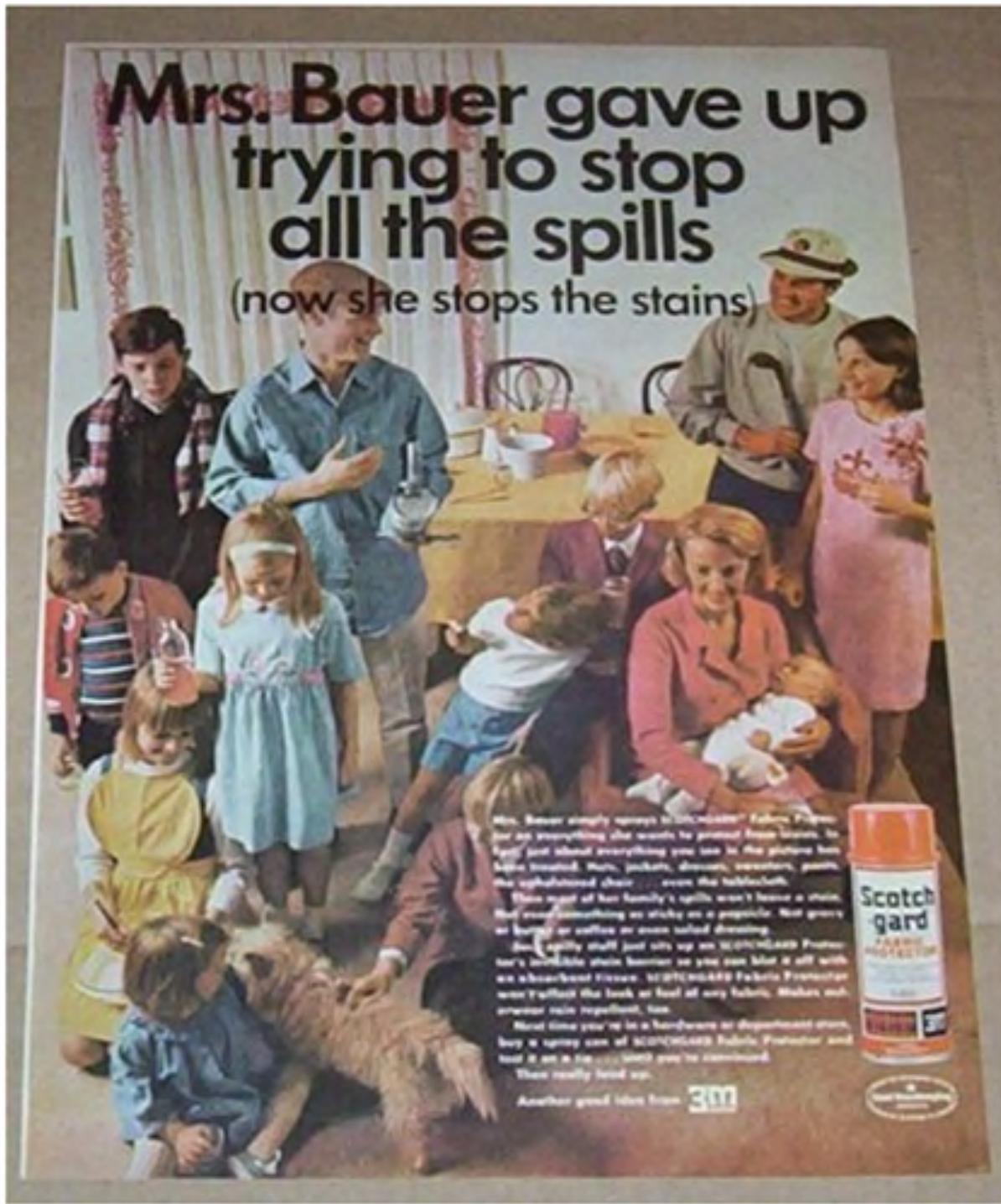


52. The advertisement below, on information and belief from 1965, advertises the benefits of Scotchgard on a furniture company's products – especially when it comes to young children. Ironically, the advertisement states “live dangerously,” but it implies that your furniture

will be safer with Scotchgard and that your children may safely use it. 3M's logo and Scotchgard trademark are both present in this ad.



53. This advertisement, on information and belief from 1967, shows a large family and friends with children and babies, and says the mother sprays "everything she wants to protect" with Scotchgard. This clearly conveys the product is safe for family and household use.



54. By the 1970s, 3M had become concerned about the risks posed to the general population by exposure to 3M's fluorochemicals. In fact, around this time, 3M abandoned a study of its fluorochemicals after the company's release of said chemicals during the study caused State of Texas v. 3M Company, et al.
Plaintiff's Original Petition

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OFFER OF PROOF

Exhibit GEAA-123

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severe pollution of nearby surface waters. In 1975, 3M found there was a “universal presence” of PFAS (PFOA and PFOS) in blood serum samples taken from individuals across the United States. Since PFAS are not naturally occurring, this finding reasonably alerted 3M to the high likelihood that its products were a source of this PFAS—a scenario 3M discussed internally, but did not share outside the company. This finding also alerted 3M to the likelihood that PFAS are mobile, persistent and bioaccumulative because these characteristics would explain the presence of PFAS in human blood. Yet, 3M continued to conceal these facts from the public who could have used this information to make educated purchasing decisions.

55. As early as 1976, 3M began monitoring the blood of its employees for PFAS because the company was concerned about their effect on human health. In 1978, 3M conducted PFOS and PFOA studies in monkeys and rats. All monkeys died within the first few days or weeks after being given food contaminated with PFOS. The studies also showed that PFOS and PFOA affected the liver and gastrointestinal tract of the species tested. In the late 1970s, 3M studied the fate and transport characteristics of PFOS in the environment, including in surface water and biota. A 1979 report drew a direct line between effluent from 3M’s Decatur, Alabama plant and fluoroochemicals bioaccumulating in fish tissue taken from the Tennessee River adjacent to the 3M plant. 3M did not reveal the harms to these animals to consumers, facts which could have impacted their purchasing decision, and instead continued to assure consumers that the products were safe.

56. In 1981, on information and belief, this advertisement from 3M shows a mother and child from the 1960s and the 1980s, and says that Scotchgard “makes living a little easier.” In actuality, 3M already had studied its employees’ blood and performed other studies due to concerns regarding health effects.



57. In 1983, 3M's scientists opined that concerns about PFAS "give rise to legitimate questions about the persistence, accumulation potential, and ecotoxicity of fluorochemicals in the environment." In 1984, 3M's internal analyses proved that fluorochemicals were likely bioaccumulating in 3M's employees.

58. In the 1980s, despite concerns regarding PFAS's negative impact on animal health, on information and belief, 3M continued to advertise Scotchgard on television without disclosing serious potential health risks, and instead touted benefits to the household. On information and belief, advertisements such as the one below showed common household stains

and how Scotchgard can protect a household, saying it “keeps ordinary spills from becoming extraordinary stains.”





59. According to a 3M environmental specialist, Rich Purdy, who resigned from his position due to the company's inaction over PFOS's environmental impacts, PFOS is "the most insidious pollutant since PCB" because it is "does not degrade," and is "more toxic." The specialist claimed that 3M omitted "the most significant information" from its report to the EPA and continues to sell PFOS despite knowledge that PFOS is "biomagnifying in the food chain and harming sea mammals." Purdy further discussed concerns that 3M had asked scientists not to put their thoughts in writing due to the "legal discovery process." Ultimately, he concluded "it is unethical to be concerned with markets, legal defensibility, and image over environmental safety." 3M had resisted calls from its own ecotoxicologists going back to 1979 to perform an

ecological risk assessment on PFOS and similar chemicals. At the time of the specialist's resignation in 1999, 3M continued its resistance.

60. Despite its understanding of the hazards associated with the PFAS in its products, 3M suppressed scientific research on the hazards associated with them and mounted a campaign to control the scientific dialogue on the fate, exposure, analytics, effects to human health, and ecological risks of PFAS. At least one scientist funded by 3M saw his goal as "keep[ing] 'bad' papers [regarding PFAS] out of the literature" because "in litigation situations," those articles "can be a large obstacle to refute." Thus, 3M deceived others and hid the negative effects of PFAS. For example, Dr. Rich Purdy wrote a letter detailing, without limitation: (1) 3M's tactics to prevent research into the adverse effects of its PFOS, (2) 3M's submission of misinformation about its PFOS to the EPA, (3) 3M's failure to disclose substantial risks associated with its PFOS to the EPA, (4) 3M's failure to inform the public of the widespread dispersal of its PFOS in the environment and population, (5) 3M's production of chemicals it knew posed an ecological risk and a danger to the food chain, and (6) 3M's attempts to keep its workers from discussing the problems with the company's fluorochemical projects to prevent their discussions from being used in the legal process.

61. By the late 1990s, 3M's own toxicologist had calculated a "safe" level for PFOS in human blood to be 1.05 parts per billion at a time when 3M was well aware that the average level of PFOS being found in the blood of the general population of the United States was approximately 30 times higher than this "safe" blood level. Yet, 3M did not disclose that information to regulatory authorities or the public to make consumer purchasing decisions relating to 3M's PFAS products.

62. Despite its knowledge of the risks associated with exposures to its PFAS products, when 3M announced that it would phase out its PFOS, PFOA, and related products in 2000, it falsely asserted “our products are safe,” instead of disclosing what it knew about the substantial threat posed by PFOS and PFOA. 3M also claimed to the press that it “was a complete surprise that [PFOS] was in the blood bank supplies” when they had been on notice of this issue for years.

TOP OF THE NEWS

EPA says it pressured 3M over Scotchgard chemical

DAVID BARBOZA NEW YORK TIMES

CHICAGO The Environmental Protection Agency said Thursday that it had pressed 3M Co. to come up with a solution after the company's own tests had shown that a chemical compound used in Scotchgard products could pose a risk to human health and the environment.

The EPA account differs from that of 3M, which said earlier this week that it had decided to stop making the chemical used in Scotchgard and many other products by the end of the year because the tests showed that the chemical compounds failed to decompose in the environment.

Officials of 3M say they have no evidence that the chemicals pose a long-term threat to human health.

The company said it negotiated with the EPA but its decision was voluntary and there was never a discussion of a recall of the products.

On Tuesday, Charles Reich, 3M's executive vice president for specialty materials markets, said, "Our decision to phase out production is based on our principles of responsible environmental management."

The EPA confirmed that the agency had not issued an ultimatum to 3M.

While the EPA said it did not see an immediate safety risk for consumers using products now on the market, agency officials said they grew concerned about potential long-term health risks to humans after a 3M study showed that the chemical, perfluorooctyl sulfonate, lingered for years in human blood and animal tissue and that high doses were known to kill laboratory rats.

"The results raised a number of concerns," said Stephen Johnson, who works in the office of prevention, pesticides and toxic substances at the EPA.

"What it suggests to us is that there are potentially long-term consequences. But we don't have evidence it is unsafe now."

Officials of 3M, however, say they are absolutely confident that their products are safe, and that there are no long-term con-

sequences to human health.

"This isn't a health issue now, and it won't be a health issue," said Larry Zobel, the medical director at 3M, which is based in Maplewood, Minn.

"To the question of whether this builds up in humans, it would have to be a long time, like hundreds of thousands of years to be a threat," he said.

The EPA said its decision to press 3M rested on four concerns: the compound is persistent in the environment; it appears in wildlife and human tissue around the world; it appears in human blood samples taken from around the world; and, based on the study of laboratory rats, it has the potential to harm humans.

The EPA said it was first alerted to the study of laboratory rats shortly after it was conducted in 1998.

In that study, male and female rats were given doses of the chemical and then mated. When a pregnant rat continued to get regular doses of about 3.2 milligrams per kilogram of body weight, most of the offspring died within four days.

"With all that information, we finally talked to 3M and said that raises a number of concerns. What are you going to do?" said Johnson at the EPA.

There is still a difference of interpretation, however.

Officials of 3M said the doses given to the rats were extremely high, but EPA officials said that few other chemicals would have as severe an effect.

"This is fairly toxic stuff in rats," one EPA official said. "There's clear evidence it presents a problem in rats."

But 3M said it had not yet determined the cause of death in the rats nor how humans or animals ingested the chemicals so that it appeared in tissue or blood samples.

"That's a very interesting question," Zobel said. "We can't say how it gets into anybody's blood."

As a result of that uncertainty, and the persistence of the compound in the environment, 3M said it would do away with the chemistry by the end of the year.



3M Co. said Tuesday that it would pull some Scotchgard products off the market because of concerns over a key ingredient. EPA officials said they grew concerned about potential long-term health risks to humans after a 3M study showed that the chemical, perfluorooctyl sulfonate, lingered for years in human blood and animal tissue.

63. 3M continued to mislead the public and stated that its decision was simply made

to "reallocat[e] resources," and still marketed its products as safe for consumer and family use.

64. Aftermarket consumer use to treat home items for stain and water resistance is especially concerning because chemicals are even more likely to transfer from the products

during application or use to indoor air and dust. Even treated fabrics, like a carpet or upholstered chair coated with Scotchgard, could create exposure. Advertisements demonstrate that 3M's marketing did not disclose the harms of its products, and in fact misrepresented them as safe for use by families. Advertisements show families gathered together using Scotchgard products, or common household uses of the products, making claims such as "You can relax." On information and belief, similar advertisements continued throughout the lifespan of the Scotchgard PFOS product.

65. On September 10, 2019, 3M's Senior Vice President for Corporate Affairs, Denise Rutherford, testified in a Congressional Hearing before the Committee on Oversight and Reform of the United States House of Representatives Subcommittee on the Environment. Rutherford stated that "[m]any of [3M's] products are essential to making people's lives better." More troublingly, Rutherford falsely asserted that "the weight of scientific evidence has not established that PFOS, PFOA, or other PFAS cause adverse human health effects. Public health agencies and independent science review panels, while acknowledging certain possible associations, agree with that basic fact."

66. 3M continued engaging in deceptive practices in 2022, coinciding with its announcement that it would phase out all of its PFAS products by 2025. 3M represented that "PFAS can be safely made and used," and that its "products are safe for their intended uses." Not only did 3M make statements it knew to be false, but it omitted material information relating to the health hazards of their products.

67. As of the filing of this Complaint, 3M has not stopped its deceptive advertisements, and continues promoting that its "products, including those containing PFAS, are safe and effective for their intended uses in everyday life."

Old DuPont's Multi-Step, Years-Long Scheme Resulting in New Companies Assuming PFAS Liabilities

68. In or about 2013, Old DuPont began planning a series of corporate restructurings designed to separate its valuable assets from its billions of dollars of legacy liabilities—especially those arising from its historical use of PFOA and other PFAS.

69. For more than five decades, Old DuPont manufactured, produced, or utilized PFOA and other PFAS at plants in New Jersey, West Virginia, and North Carolina, among others. By 2013, Old DuPont knew it was facing an avalanche of claims related to its PFAS business.

70. For example, a 2012 study—funded by Old DuPont pursuant to a 2005 class action settlement—confirmed “probable links” between PFOA exposure and several serious human diseases: medically diagnosed high cholesterol, ulcerative colitis, pregnancy induced hypertension, thyroid disease, testicular cancer, and kidney cancer. As a result, more than 3,500 class members with one or more of those linked diseases filed personal injury claims against Old DuPont. Under the terms of the 2005 class settlement, Old DuPont had agreed not to contest the fact that the class members’ exposure to PFOA could have caused each of the linked diseases, significantly limiting Old DuPont’s available defenses to liability.

71. Anticipating significant liability exposure, Old DuPont convened an internal initiative known as “Project Beta” in or about 2013 for Old DuPont’s management to consider restructuring the company in order to, among other things, avoid responsibility for the widespread harm that Old DuPont’s PFAS had caused, and shield billions of dollars in assets from these substantial liabilities.

72. At the same time, Old DuPont and Old Dow were discussing a possible “merger of equals.” But no rational merger partner, including Old Dow, would agree to a transaction that would expose it to the substantial PFAS and environmental liabilities that Old DuPont faced.

73. Accordingly, Old DuPont’s management decided to pursue a multi-year corporate restructuring specifically orchestrated to isolate Old DuPont’s massive legacy liabilities from its valuable tangible assets in an attempt to entice Old Dow to pursue the proposed merger.

74. Old DuPont engaged in a coordinated three-part restructuring plan that consisted of (i) Old DuPont’s attempt to cast off its massive performance chemicals liabilities onto Chemours, its then newly-formed wholly owned subsidiary, and spinning off Chemours as a separate publicly traded company; (ii) the creation of New DuPont to facilitate a purported merger with Old Dow; and (iii) a series of internal restructurings and divestitures that resulted in the spinoff of Old DuPont to its newly formed parent, Corteva. In the end, New DuPont and Corteva assumed Old DuPont’s liabilities related to, among other things, its use and manufacture of PFAS chemicals, and are directly liable for Old DuPont’s conduct at issue in this case.

75. In greater detail, the restructuring scheme was implemented as follows.

i. Step 1: The Chemours Spinoff

76. The first step in Old DuPont’s scheme was to create Chemours as a wholly owned subsidiary and transfer its performance chemicals business, which included Teflon® and other products associated with Old DuPont’s historic use of PFOA (“Performance Chemicals Business”) to Chemours. Then, on July 1, 2015, Old DuPont spun off Chemours as a separate public entity and saddled Chemours with Old DuPont’s massive legacy liabilities (the “Chemours Spinoff”).

77. To effectuate the Chemours Spinoff, Old DuPont and Chemours entered into a June 26, 2015 Separation Agreement (the “Chemours Separation Agreement”).

78. Pursuant to the Chemours Separation Agreement, Old DuPont agreed to transfer to Chemours all businesses and assets related to the Performance Chemicals Business, including 37 active chemical plants.

79. Chemours, in turn, broadly assumed Old DuPont’s massive liabilities relating to Old DuPont’s Performance Chemicals Business and other unrelated business lines, set forth in detail in the nonpublic schedules and exhibits to the Chemours Separation Agreement.

80. Specifically, the Chemours Separation Agreement requires Chemours to indemnify Old DuPont against, and assume for itself, all “Chemours Liabilities,” which are defined broadly to include, among other things, “any and all Liabilities relating . . . primarily to, arising primarily out of or resulting primarily from, the operation or conduct of the Chemours Business, as conducted at any time prior to, at or after the Effective Date,” which includes Old DuPont’s historic liabilities relating to and arising from its marketing and operation of the Performance Chemicals Business, such as its liabilities arising from PFAS.

81. In addition to requiring Chemours to assume billions of dollars of Old DuPont’s PFAS liabilities, the Chemours Separation Agreement includes an indemnification of Old DuPont in connection with those liabilities, which is uncapped and does not have a survival period.

82. Notwithstanding the billions of dollars in PFAS liabilities that Chemours would face, on July 1, 2015, Old DuPont caused Chemours to transfer to Old DuPont approximately \$3.4 billion as a cash dividend, along with a “distribution in kind” of promissory notes with an aggregate principal amount of \$507 million. In total, Old DuPont extracted approximately \$3.9 billion from Chemours.

83. Old DuPont required Chemours to fund these distributions through financing transactions, including senior secured term loans and senior unsecured notes totaling approximately \$3.995 billion, on May 12, 2015.

84. Old DuPont, however, transferred only \$4.1 billion in net assets to Chemours. At the end of 2015, Chemours reported a total net worth of just \$130 million. But Chemours's estimated liabilities—which at the time totaled \$6.168 billion—vastly underestimated the true value of its liabilities, including the PFAS liabilities it had assumed from Old DuPont, which Chemours knew or should have known would cost it billions of dollars.

85. In fact, Old DuPont spun off Chemours into a state of insolvency. Indeed, Old DuPont left Chemours so undercapitalized that in May 2019, Chemours sued Old DuPont, New DuPont, and Corteva in Delaware Chancery Court. *See The Chemours Company v. DowDuPont, et al.*, C.A. No. 2019-0351 (Del. Ch. Ct., filed May 13, 2019). Chemours alleged, among other things, that if (i) the full value of Old DuPont's potential PFAS liabilities was properly estimated and (ii) Chemours were required to satisfy all the potential liabilities DuPont transferred to it, then Chemours would have been insolvent at the time it was spun off from Old DuPont.

ii. Step 2: The Old Dow/Old DuPont “Merger”

86. After the Chemours Spinoff, Old DuPont took the untenable position that it was somehow no longer responsible for the widespread PFAS liabilities that it had accrued over several decades. Of course, Old DuPont could not contractually discharge all of its historical liabilities through the Chemours Spinoff, and Old DuPont remained liable for the liabilities it had caused and Chemours had assumed.

87. Old DuPont knew that it could not escape liability and would still face exposure for PFAS liabilities, including for potentially massive penalties and punitive damages. So Old DuPont moved to the next phase of its restructuring scheme.

88. On December 11, 2015, less than six months after the Chemours Spinoff, Old DuPont and Old Dow announced that their respective boards had approved an agreement “under which the companies [would] combine in an all-stock merger of equals” and that the combined company would be named DowDuPont, Inc. (the “DowDuPont Merger”). The companies disclosed that they intended to subsequently separate the combined companies’ businesses into three publicly traded companies through further spinoffs, each of which would occur 18 to 24 months following the closing of the merger.

89. To effectuate the transaction, Old DuPont and Old Dow entered into an Agreement and Plan of Merger (the “DowDuPont Merger Agreement”) that provided for the formation of a new holding company renamed first as DowDuPont and then renamed again as DuPont de Nemours, Inc. (*i.e.*, New DuPont), of which Old DuPont and Old Dow became wholly owned subsidiaries.

90. Although Old DuPont and Old Dow referred to the transaction as a “merger of equals,” the two companies did not actually merge at all, likely because doing so would have infected Old Dow with all of Old DuPont’s historical PFAS liabilities. Rather, Old DuPont and Old Dow became affiliated sister companies that were each owned by the newly formed DowDuPont. DowDuPont was aware of Old DuPont’s historical PFAS liabilities.

iii. Step 3: The Shuffling, Reorganization, and Transfer of Valuable Assets Away from Old DuPont and Separation of Corteva and New Dow

91. Following the DowDuPont Merger, DowDuPont underwent a significant internal reorganization and engaged in numerous business segment and product line “realignments” and “divestitures.” The net effect of these transactions has been the transfer, either directly or indirectly, of a substantial portion of Old DuPont’s assets out of the company, frustrating Old DuPont’s creditors, including with respect to its substantial PFAS liabilities.

92. Old DuPont’s assets were transferred either directly or indirectly to DowDuPont, which reshuffled the assets and combined them with the assets of Old Dow, and then reorganized the combined assets into three distinct divisions: (i) the “Agriculture Business,” (ii) the “Specialty Products Business,” and (iii) the “Materials Science Business.”

93. DowDuPont then incorporated two companies (i) Corteva and (ii) New Dow. In accordance with the merger plan, each of these three companies received one of the three business divisions associated with Old DuPont’s and Old Dow’s historic assets, and was subsequently separated as an independent, publicly traded company.

94. The mechanics of the separations are governed by the April 1, 2019 Separation and Distribution Agreement among Corteva, New Dow, and DowDuPont (the “DowDuPont Separation Agreement”) and a subsequent June 1, 2019 Letter Agreement between Corteva and DowDuPont (the “Letter Agreement”).

95. The DowDuPont Separation Agreement allocated the assets and liabilities primarily related to the respective business divisions between the three companies: DowDuPont retained the assets and liabilities associated with the Specialty Products Business and several “non-core” business segments and product lines that once belonged to Old DuPont; Corteva

received the assets and liabilities associated with the Agriculture Business; and New Dow received the assets and liabilities associated with the Materials Science Business.

96. DowDuPont also “contributed” Old DuPont to Corteva, and Old DuPont remains a wholly-owned subsidiary of Corteva to this day.

97. Pursuant to the DowDuPont Separation Agreement and Letter Agreement, Corteva and New DuPont also assumed direct financial liability for legacy liabilities arising from Old DuPont’s historic use of PFOA and other PFAS and its former Performance Chemicals Business, *i.e.*, the same liabilities that DuPont had caused Chemours to assume in 2015. While New DuPont and Corteva initially tried to bury the details in nonpublic schedules, New DuPont and Corteva’s express assumption of Old DuPont’s historic liabilities has been revealed through other litigation, and includes all liability associated with PFAS. The State of Texas can therefore bring claims against New DuPont and Corteva directly for Old DuPont’s deceptive marketing of consumer PFAS-containing brands.

98. The separation of New Dow was completed on or about April 1, 2019, when DowDuPont distributed all of New Dow’s common stock to DowDuPont stockholders as a pro rata dividend.

99. On June 1, 2019, DowDuPont spun off Corteva as an independent public company, when DowDuPont distributed all of Corteva’s common stock to DowDuPont stockholders as a pro rata dividend.

100. Also, on or about June 1, 2019, DowDuPont changed its registered name to DuPont de Nemours, Inc. (*i.e.*, New DuPont).

101. On or about January 1, 2023, Old DuPont changed its registered name to EIDP, Inc.

102. The net result of these transactions was to strip away valuable tangible assets from Old DuPont—once available to satisfy successful claims brought by potential plaintiffs such as the State of Texas—and transfer those assets to New DuPont and Corteva for far less than the assets are worth.

103. Many details about these transactions were hidden from the public in confidential schedules and exhibits to the DowDuPont Separation Agreement and the Letter Agreement. Old DuPont, New DuPont, and Corteva buried these details in an apparent attempt to hide from creditors, like the State of Texas, where Old DuPont's valuable assets went and the inadequate consideration that Old DuPont received in return. Moreover, neither New DuPont nor Corteva has publicly conceded that they assumed Old DuPont's liabilities arising from its historic use of PFOA and other PFAS. However, certain courts have required New DuPont and Corteva to disclose the nonpublic portions of the restructuring agreements—including the DowDuPont Separation Agreement and Letter Agreement. Under the plain language of those agreements, New DuPont and Corteva contractually assumed Old DuPont's liabilities arising from its historic use of PFOA and other PFAS, and are therefore directly liable for Texas's claims against Old DuPont in this case.

104. Indeed, several courts have held that New DuPont and Corteva contractually assumed Old DuPont's PFAS liabilities. The North Carolina Supreme Court, for example, held that New DuPont and Corteva expressly assumed Old DuPont's PFAS liabilities pursuant to the DowDuPont Separation Agreement and Letter Agreement. *See State ex rel. Stein v. E. I. Du Pont De Nemours & Co.*, 382 N.C. 549, 563 (N.C. 2022) (“Corteva and New DuPont expressly assumed Old DuPont's PFAS liabilities, including those liabilities arising in North Carolina”).

The trial court subsequently entered summary judgment against New DuPont and Corteva on the State of Texas v. 3M Company, et al.
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issue of their contractual assumption of the PFAS liabilities of Old DuPont. *See State ex rel. Stein v. E.I. du Pont de Nemours & Co.*, No. 20 CVS 5612, 2024 WL 472553, at *6 (N.C. Super. Feb. 7, 2024).

XI. COUNT I: VIOLATIONS OF THE DTPA

105. The State of Texas incorporates Paragraphs 1 through 104, as is fully set forth herein.

106. Defendants have engaged in false, misleading, or deceptive acts or practices in the conduct of trade or commerce, in violation of DTPA § 17.46(a).

107. Defendants represented that their goods or services have sponsorship, approval, characteristics, ingredients, uses, benefits, or quantities which they do not have, in violation of DTPA § 17.46(b)(5).

108. Defendants represented that goods or services are of a particular standard, quality, or grade, or that goods are of a particular style or model, when they were another, in violation of DTPA § 17.46(b)(7).

109. Defendants failed to disclose information concerning goods or services which was known at the time of the transaction, and such failure to disclose this information was intended to induce the consumer into a transaction into which the consumer would not have entered had the information been disclosed, in violation of DTPA § 17.46(b)(24).

110. New DuPont and Corteva agreed to assume Old DuPont's liabilities described above.¹

¹ Note that this transaction is being challenged as a fraudulent transfer in numerous actions across the country, for example in *The State of Texas v. 3M Company, et al.*, Case No. 2:23-cv-04294.

XII. PRAYER

111. WHEREFORE, PREMISES CONSIDERED, the State of Texas prays that Defendants be cited according to the law to appear and answer herein; that after due notice and hearing, a TEMPORARY INJUNCTION be issued; and that after due notice and trial, a PERMANENT INJUNCTION be issued. The State of Texas prays that the Court will issue an ORDER enjoining Defendants, their officers, agents, servants, employees, and any other persons in active concert or participation with Defendants from the following:

- A. Misrepresenting the safety or human health risks of chemicals sold by you;
- B. Failing to clearly and conspicuously disclose human health risks with products sold by you;
- C. Selling or offering for sale any goods which contain PFAS chemicals known by you to create health and safety concerns to users of those goods;
- D. Causing goods in the stream of commerce to include any PFAS chemicals which are known by you to create health and safety concerns to the users of those goods; and
- E. Advertising or marketing any goods using the direct or implied representation that goods are safe for household or consumer use, if such goods are known by you to include chemicals that create health risks to the users of those goods.

112. Plaintiff further requests that this Court award money damages.

113. Plaintiff further requests that Defendants be ordered to pay to the State of Texas:

- A. Civil penalties of up to \$10,000.00 per violation of the DTPA;
- B. Pre-judgment and post-judgment interest on all awards of restitution, damages, or civil penalties, as provided by law;
- C. All costs of Court, costs of investigation, and reasonable attorney's fees pursuant to Texas Government Code § 402.006(c); and
- D. Decree that all of Defendants' fines, penalties or forfeitures are not dischargeable in bankruptcy. *See* 11 U.S.C. § 523(a)(7).

114. Plaintiff prays for all further relief, at law or inequity, to which it is justly entitled.

Dated: December 11, 2024

Respectfully Submitted,

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