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**SOAH DOCKET NO. 582-20-1895
TCEQ DOCKET NO. 2019-1156-IWD**

IN THE MATTER OF THE	§	BEFORE THE STATE OFFICE
APPLICATION OF PORT OF	§	
CORPUS CHRISTI AUTHORITY OF	§	OF
NUECES COUNTY FOR TPDES	§	
PERMIT NO. WQ0005253000	§	ADMINISTRATIVE HEARINGS

**PORT OF CORPUS CHRISTI AUTHORITY'S
CLOSING ARGUMENT**

Applicant Port of Corpus Christi Authority of Nueces County (the “Port Authority”) files this Closing Brief, and in support would show this Court as follows:

**I.
INTRODUCTION**

The Port Authority¹ represents the interests of the 428,488 residents of Nueces and San Patricio Counties, the City of Corpus Christi, other local governments, and the surrounding region. The Port Authority is required to develop port-related industries that advance the economies of Nueces and San Patricio Counties, and its efforts have attracted billions of dollars in private capital to the region, built the tax base of all local taxing authorities, and created employment opportunities for thousands of South Texans over several generations.

To further promote a healthy local economy and environment, the Port Authority is seeking a Texas Pollutant Discharge Elimination System (“TPDES”) permit for a proposed seawater desalination facility (the “Facility”). The Facility will bring potable water to Nueces and San Patricio Counties that have suffered repeated, severe drought conditions posing imminent threats

¹ The Port Authority is a governmental entity established in 1922. It is a political subdivision of the State of Texas created under Texas Water Code § 62.021 as authorized by article XVI, section 59 of the Texas Constitution. TEX. WATER CODE § 62.021; TEX. CONST. art. XVI, § 59 (amended 1973).

of disaster to the public, health, property, and the economy in the region.² Governor Abbott signed HB 2031 to address these drought conditions by allowing entities to obtain permits to undertake seawater desalination in accordance with rules established by the Texas Commission on Environmental Quality (“TCEQ”). The Port Authority has complied with the TCEQ’s rules, and the TCEQ Executive Director has issued his decision that the Port Authority has met the requirements for issuance of a permit.

No local government, City, or County opposes the Draft Permit. The only opposition to the Draft Permit consists of two non-governmental entities and private parties who disagree with every other local government. Neither Protestant Port Aransas Conservancy (“PAC”) nor the individuals who are opposed to the Draft Permit submitted their own direct testimony to support their objections.³ PAC’s founder has publicly admitted that its goal in contesting this permit is to intentionally delay any projects by the Port Authority.⁴ Its members and the experts PAC retained to give testimony as “honest brokers” have been frank about their goal to thwart all development in this important economic region—even important projects such as seawater desalination that will provide a source of drinking water to the citizens of Texas.⁵

² Since the Executive Director issued his July 12, 2019 decision that the Port Authority’s permit application meets the requirements of applicable law, Governor Abbot has issued two more emergency proclamations for Nueces and San Patricio Counties in August 2019 and November 2019 declaring a state of disaster due to severe drought. <https://gov.texas.gov/news/post/governor-abbott-extends-state-of-disaster-in-south-texas-due-to-drought-conditions> (August 2019); <https://gov.texas.gov/news/post/governor-abbott-declares-drought-in-53-texas-counties> (November 2019).

³ No individual protestant or PAC representative filed direct testimony to support their allegations or to subject those claims to cross-examination. Instead, they decided to file opening and closing arguments that are not under oath and not evidence.

⁴ See Port Authority’s Response to Protestants’ Motion to Reset the Preliminary Hearing filed on May 12, 2020.

⁵ A PAC spokesperson has repeatedly admitted in newspaper interviews that PAC “hopes to slow the port down by contesting permits,” in essence, using the State’s contested case permitting process to intentionally slow down a governmental process. See John MacCormack, *Battle of Port “A”*, SAN ANTONIO EXPRESS NEWS, Mar. 12, 2020, <https://www.expressnews.com/news/local/article/Port-A-battles-big-oil-to-preserve-its-15123245.php>; John MacCormack, *Port Aransas “at war” with Big Oil plans*, HOUSTON CHRON., Apr. 25, 2020, <https://www.pressreader.com/usa/houston-chronicle/20200427/281608127585667>. See Port Authority’s Response to

However, as Protestants' evidence and arguments have shown, Protestants are really putting on trial the State's rules, process, and regulatory standards for issuing permits. The "evidence" they present is nothing more than their wish list of how they would change the current law and the State's permitting programs, with the hope that the Administrative Law Judges ("ALJs") will require a change in the rules that the TCEQ has put in place. The TCEQ rules and procedures are not at issue in this hearing. This hearing addresses whether the Applicant has met the current law that governs these proceedings and not what Protestants think the law, TCEQ rules, or TCEQ procedures "ought to be." The Applicant and the TCEQ have both documented that the Draft Permit meets the requirements of the law and should be granted.

II. STANDARD OF REVIEW

A. Applicant's Burden of Proof and Prima Facie Demonstration

The Port Authority, as the Applicant, has the burden of proof by a preponderance of the evidence regarding whether the Draft Permit complies with all applicable statutory and regulatory requirements.⁶ Under the current requirements, the filing of the administrative record ("AR") with SOAH establishes a prima facie demonstration that: (a) the Draft Permit meets all applicable state and federal legal and technical requirements; and (b) if the permit issued by the Commission is consistent with the Draft Permit in the AR, it would protect human health and safety, the environment, and physical property.⁷ The AR was filed with SOAH and admitted into evidence for all purposes at the preliminary hearing on July 9, 2020.⁸ The Port Authority's burden of proof

Protestants' Motion to Reset the Preliminary Hearing filed on May 12, 2020 at Fn. 4 The State's contested case permitting process was recently amended by the Texas Legislature to streamline the processes and prevent such delays. *See* Bill Analysis, S. B. 709.

⁶ 30 TEX. ADMIN. CODE § 80.17(a).

⁷ 30 TEX. ADMIN. CODE § 80.17(c)(1); 30 TEX. ADMIN. CODE § 80.117(c)(1).

⁸ *See* Order No. 5, at 1.

is met by the filing and admittance by the ALJs of the AR and the testimony of its expert witnesses provides additional evidence in support of the issuance of the Draft Permit.⁹

With the Port Authority having met its burden of proof, other parties may attempt to rebut the prima facie demonstration by presenting evidence. But not just any evidence—an opposing party must present evidence that the Draft Permit violates a specifically applicable state or federal requirement.¹⁰ The regulatory framework is important. It is not enough for Protestants to present evidence that they have concerns about the draft permit or evidence regarding the issues referred to the ALJs.¹¹ To rebut the prima facie demonstration, they must present credible evidence that “one or more of the provisions in the draft permit” (a) violates a specifically applicable state or federal requirement, that (b) relates to a matter referred by the commission.¹² Section 80.117(c)(3) is clear both (a) and (b) are required. Protestants cannot simply meet their burden by offering evidence on one of the issues referred by the TCEQ without identifying a “specifically applicable state or federal requirement” that has been violated. Protestants failed to meet this burden.

B. Requirements for Competent Expert Evidence in Texas

Protestants’ evidence was presented entirely through the opinion testimony of six witnesses,¹³ some of them with acknowledged bias against the Port Authority and development of Harbor Island.¹⁴ In support of the Draft Permit, in addition to the AR, the Port Authority presented evidence from three

⁹ 30 TEX. ADMIN. CODE § 80.117(b)-(c)..

¹⁰ 30 TEX. ADMIN. CODE § 80.17(c)(2).

¹¹ A review of the evidence from Protestants’ witnesses demonstrates that it is dominated not by scientific facts, but largely by suspicion and concern.

¹² 30 TEX. ADMIN. CODE § 80.117(c)(3).

¹³ The sole other witness for Protestants was a representative of Audubon Texas. The majority of the prefiled testimony for Audubon Texas was excluded from evidence because the witness was not qualified to provide expert opinions on any of the matters at issue. TR 11/02/2020, 13:2 – 13:23.

¹⁴ Scott Holt openly admitted that he was biased: “I too am biased in my opinion about this facility.” TR 11/04/2020, 257:8 – 257:15.

expert witnesses, and the TCEQ's executive director provided direct testimony from three TCEQ staff members. Because Protestants are relying exclusively on expert testimony and have no direct evidence of their own, the rules governing expert witness testimony are instructive and demonstrate the failure of Protestants' experts. The Port Authority addresses those principles here to avoid repetition in the discussion of the individual witnesses.

Rule 702. The admissibility of expert testimony is governed by Texas Rule of Evidence 702, which states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.¹⁵

In determining whether an expert's testimony complies with the requirements of Rule 702, the ALJs, like a trial court, are charged with the responsibility to exclude unreliable evidence.¹⁶ "Like a trial court, an ALJ has broad discretion in deciding whether to admit expert testimony in an administrative hearing, and her decision will not be disturbed absent an abuse of discretion."¹⁷ A trial court has discretion to exclude previously admitted testimony after the trial.¹⁸ Even where expert testimony is admitted and not later excluded, the ALJ, as judge of the weight to be accorded

¹⁵ TEX. R. EVID. 702.

¹⁶ *E.I. du Pont de Nemours & Co. v. Robinson*, 923 S.W.2d 549, 556 (Tex. 1995) (adopting *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)); *Gunn v. McCoy*, 554 S.W.3d 645, 662 (Tex. 2018) (noting that the trial court has role as "gatekeeper" for an expert's testimony); *TXI Transp. Co. v. Hughes*, 306 S.W.3d 230, 234-35 (Tex. 2010).

¹⁷ *Fay-Ray Corp. v. Texas Alcoholic Bev. Comm'n*, 959 S.W.2d 362, 367 (Tex. App.—Austin 1998, no pet.) (citing TEX. GOV'T CODE § 2001.081).

¹⁸ *Weingarten Realty Inv'rs v. Harris County Appraisal Dist.*, 93 S.W.3d 280, 283 (Tex. App.—Houston [14th Dist.] 2002, no pet.).

to witnesses' testimony, may disregard part of an expert's testimony if it is not credible, even if other parts are accepted.¹⁹

Even when admitted, opinion testimony that is conclusory or speculative is not relevant evidence because it does not tend to make the existence of a material fact “more probable or less probable.”²⁰ The Texas Supreme Court has labeled such testimony as “incompetent evidence,” and held that such conclusory testimony cannot support a judgment.²¹ The Texas Supreme Court has further held it is well-settled that the naked and unsupported opinion or conclusion of a witness does not constitute evidence of probative force.²² Even where admitted, bare conclusions do not “amount to any evidence at all.”²³ When the expert “brings to court little more than his credentials and a subjective opinion,” this is not evidence that would support a judgment.²⁴

Experts Not Qualified Under Rule 702. In applying Rule 702, the Texas Supreme Court has held that to be qualified under the Texas Rules of Evidence, an expert witness must have “knowledge, skill, experience, training, or education” regarding the specific issue before the court.²⁵ Acting as both gatekeepers and factfinders, ALJs may conduct an ongoing assessment

¹⁹ *Scally v. Tex. State Bd. of Med. Examiners*, 351 S.W.3d 434, 453 (Tex. App.—Austin 2011, pet. denied) (citing *Southern Union Gas Co. v. Railroad Comm'n of Tex.*, 692 S.W.2d 137, 141–42 (Tex. App.—Austin 1985, writ ref'd n.r.e.)).

²⁰ *City of San Antonio v. Pollock*, 284 S.W.3d 809, 816 (Tex. 2009) (citing TEX. R. EVID. 401).

²¹ *Id.* (citing *Cas. Underwriters v. Rhone*, 132 S.W.2d 97, 99 (Tex. 1939) (holding that a witness's statements were “but bare conclusions and therefore incompetent.”)); *see also Wadewitz v. Montgomery*, 951 S.W.2d 464, 466 (Tex. 1997) (“[A]n expert witness's conclusory statement . . . will neither establish good faith at the summary judgment stage nor raise a fact issue to defeat summary judgment.”).

²² *City of San Antonio v. Pollock*, 284 S.W.3d at 816 (citing *Dallas Ry. & Terminal Co. v. Gossett*, 294 S.W.2d 377, 380 (Tex. 1956)).

²³ *Id.* (citing *Rhone*, 132 S.W.2d at 99).

²⁴ *Merrell Dow Pharms., Inc. v. Havner*, 953 S.W.2d 706, 712 (Tex. 1997).

²⁵ *Broders v. Heise*, 924 S.W.2d 148, 153 (Tex. 1996) (applying TEX. R. EVID. 702); *see also Cooper Tire & Rubber Co. v. Mendez*, 204 S.W.3d 797, 800 (Tex. 2006); *Roberts v. Williamson*, 111 S.W.3d 113, 120-21 (Tex. 2003).

regarding an expert's reliability, expertise, and the principles to which they relied when reaching their opinions.²⁶

Testimony Based Upon a Reliable Foundation Under Rule 702. When analyzing whether expert testimony is based on a reliable foundation, a court should consider several factors, including, but not limited to:

1. The extent to which the theory can be tested;
2. The extent to which the technique relies upon the subjective interpretation of the expert;
3. Whether the theory has been subjected to peer review and publication;
4. The technique's potential rate of error;
5. Whether the underlying theory or technique has been generally accepted as valid by the relevant scientific community; and
6. The non-judicial uses that have been made of the theory or technique.²⁷

“Reliable expert testimony must be based on a probability standard, rather than on mere possibility.”²⁸ The Supreme Court of Texas has stated that “if an opinion is fundamentally unsupported, then it offers no expert assistance to the [factfinder].”²⁹ An expert's opinion must rely on a sound foundation of data, not mere speculation. An expert's opinion is unreliable if it is based on subjective belief or unsupported speculation.³⁰ Additionally, an expert's opinion is unreliable if “it is based on tests or data that do not support the conclusions reached.”³¹ If an expert's testimony is

²⁶ *Sally*, 351 S.W.3d at 450-51; *Swate v. Texas Med. Bd.*, No. 03-15-00815-CV, 2017 WL 3902621, at *2-3, *5 (Tex. App.—Austin Aug. 30, 2017, pet. denied).

²⁷ *Robinson*, 923 S.W.2d at 556-557; *Havner*, 953 S.W.2d at 714.

²⁸ *Gharda USA, Inc. v. Control Sols., Inc.*, 464 S.W.3d 338, 349 (Tex. 2015).

²⁹ *Havner*, 953 S.W.2d at 712.

³⁰ *Whirlpool Corp. v. Camacho*, 298 S.W.3d 631, 642 (Tex. 2009).

³¹ *Gunn*, 554 S.W.3d at 662.

not reliable, it is not probative evidence.³² Testimony is unreliable if the court concludes that “there is too great of an analytical gap between the data on which the expert relies and the opinion offered.”³³

Expert opinion testimony which is connected to existing data only by the expert’s *ipse dixit* should be excluded.³⁴ The evidentiary value of an expert’s testimony “is derived from its basis, not from the mere fact that the expert has said it.”³⁵ “If the expert brings only his credentials and a subjective opinion, his testimony is fundamentally unsupported and therefore of no assistance to the jury.”³⁶ “The reliability requirement focuses on the principles, research, and methodology underlying an expert’s conclusions.”³⁷

In reviewing the reliability of an expert’s testimony, the analysis is not “whether the expert’s opinions are *correct*,” rather, it is “whether the analysis used to form those opinions is *reliable*.”³⁸ Expert testimony involving scientific knowledge that is not grounded “in the methods and procedures of science is no more than ‘subjective belief or unsupported speculation.’”³⁹ Opinion testimony that is conclusory or speculative is not relevant evidence because it does not tend to make the existence of a material fact “more probable or less probable.”⁴⁰

³² *Id.* at 662-63; *Havner*, 953 S.W.2d at 713.

³³ *Gharda USA, Inc.*, 464 S.W.3d at 349 (quoting *Volkswagen of Am., Inc. v. Ramirez*, 159 S.W.3d 897, 904–05 (Tex. 2004)); *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 727 (Tex. 1998).

³⁴ *Gammill*, 972 S.W.2d at 727; BLACK’S LAW DICTIONARY (10th ed. 2014), *ipse dixit* (*ipse dixit* is Latin for “he himself said it.”); *Gharda USA, Inc.*, 464 S.W.3d at 349 (“[A] claim will not stand or fall on the mere *ipse dixit* of a credentialed witness.”) (quoting *Burrow v. Arce*, 997 S.W.2d 229, 235 (Tex. 1999)).

³⁵ *Houston Unlimited, Inc. Metal Processing v. Mel Acres Ranch*, 443 S.W.3d 820, 829 (Tex. 2014); *Nat. Gas Pipeline Co. of Am. v. Justiss*, 397 S.W.3d 150, 156 (Tex. 2012).

³⁶ *Cooper Tire & Rubber Co.*, 204 S.W.3d at 801 (citing *Havner*, 953 S.W.2d at 712).

³⁷ *Kerr-McGee Corp. v. Helton*, 133 S.W.3d 245, 254 (Tex. 2004).

³⁸ *Gharda USA, Inc.*, 464 S.W.3d at 349 (citing *Exxon Pipeline Co. v. Zwahr*, 88 S.W.3d 623, 629 (Tex. 2002)) (emphasis added).

³⁹ *Robinson*, 923 S.W.2d at 557 (quoting *Daubert*, 509 U.S. 579, 590 (1993)); *see also Havner*, 953 S.W.2d at 711 (expert’s “bare opinions will not suffice” and the “substance of the testimony must be considered”).

⁴⁰ *Coastal Transp. Co. v. Crown Cent. Petroleum Corp.*, 136 S.W.3d 227, 232 (Tex. 2004); *Houston Unlimited, Inc.*, 443 S.W.3d at 829 (“[I]f no basis for the opinion is offered, or the basis offered provides no support, the opinion is

Conclusory opinions are considered no evidence.⁴¹ An expert's opinion is conclusory when: (1) the expert asks the factfinder to "take his word that his opinion is correct but offers no basis for his opinion or the bases offered do not actually support the opinion;" or (2) the expert "offers only his word that the bases offered to support his opinion actually exist or support his opinion."⁴²

III. SUMMARY OF ARGUMENT

The Draft Permit is both protective of the marine environment, aquatic life, and wildlife and meets or exceeds the applicable TCEQ requirements. The Port Authority has not only provided the necessary information for the TCEQ's staff to review and approve the Draft Permit. It has also provided additional modeling and calculations demonstrating that the effluent from the Facility will contribute less than 1% of the mass of salinity flowing in and out of the Corpus Christi Ship Channel ("CCSC") at the location of the outfall. The volume of outfall from the Facility consists of no more than 0.5% of the total tidal exchange in the CCSC where the outfall is located. In addition, the Draft Permit contains monitoring and testing requirements that will provide further protections to the marine environment, aquatic life, and wildlife. Both the AR and the direct testimony from the Port Authority's and TCEQ's witnesses confirm that issuance of the Draft Permit should be recommended by the ALJs. Protestants' expert witnesses are not credible because they have confessed their bias, as humans if not as scientists, as if they could split their personalities between the two. PAC's experts' opinions are based upon inadequate data and analytical gaps. At the most fundamental level, PAC's experts admit that they do not know what amount the outfall from the Facility will contribute to the overall salinity in the CCSC, and they

merely a conclusory statement and cannot be considered probative evidence, regardless of whether there is no objection.") (quoting *City of San Antonio v. Pollock*, 284 S.W.3d 809, 818 (Tex. 2009)).

⁴¹ *Windrum v. Kareh*, 581 S.W.3d 761, 770 (Tex. 2019).

⁴² *Id.* at 769.

also admit that without that information, they can offer no opinions on what marine life will be adversely affected from the outfall. These concessions condemn their opinions and render them fatally flawed. PAC and its experts, as Holt stated, “just don’t want the damn thing built here” because they live in the community and are concerned their own self-interests will be adversely affected. PAC and its experts fail to identify any federal or state rule specifically applicable to the outfall that the Draft Permit violates, and they ignore the testing, monitoring, and other requirements that the Draft Permit would require the Port Authority to follow. The Port Authority requests that the ALJs approve the Draft Permit as written.

IV. ARGUMENT

A. The Proposed Discharge Does Not Violate a Requirement⁴³ that Would Adversely Impact the Marine Environment.⁴⁴ (Issue 4a)

1. The Port Authority Established that the Proposed Discharge Does Not Violate a Requirement and Will Not Adversely Affect the Marine Environment.

The Draft Permit’s terms and conditions confirm that the proposed discharge will comply with all applicable requirements and will be protective of the Marine Environment.⁴⁵

a. The Administrative Record establishes that the proposed discharge is consistent with the Requirements and is protective of the Marine Environment.

⁴³ The Port Authority will use “Requirement” to refer to a specifically applicable federal or state requirement as discussed in 30 TEX. ADMIN. CODE § 80.117(c)(3).

⁴⁴ The Port Authority will use the term “Marine Environment” to refer to the following: marine environment, aquatic wildlife, including birds and endangered species, spawning eggs, and larval migration.

⁴⁵ As a starting point it should be noted, that the proposed discharge in Issue 4a must mean the discharge from the proposed Desalination Facility that is released consistent with the terms and conditions of the Draft Permit. It cannot be the case that the “proposed discharge” referenced in Issue with 4a should be considered apart and aside from the Draft Permit limitations because doing so would be inconsistent with the statutory basis for this contested case, and it would be illogical to examine the proposed discharge as if there were no limitation, monitoring, testing, or other requirements placed upon that discharge.

The Administrative Record contains the following documentation of the Application and the TCEQ's review of that Application and drafting of the Draft Permit:

- Exhibit AR-4 contains the original Application, the revisions and additions to the Application and a final version of the Application with all revisions and additions incorporated. The Application consists of the Industrial Administrative Reports with Attachments including the Technical Report which identifies the location of the outfall,⁴⁶ and the Process Design Basis and Narrative report⁴⁷ that provides a description of the desalination facility, including a process diagram and water balance. The Application as supplemented and amended contains all the information required for the TCEQ's review of a TPDES application.
- Exhibits AR-3 and AR-6 include all required public notices for the proposed Draft Permit.
- Exhibit AR-8 contains the TCEQ Executive Director's Statement of Basis/Technical Summary and Executive Director's Preliminary Decision which presents the calculations and technical basis for the decision to recommend issuance of the Draft Permit.⁴⁸
- Exhibit AR-8 also contains:
 - The TCEQ Interoffice Memorandum dated August 20, 2018 from M.A. Wallace, Ph.D. that describes the discharge route for the Port Authority desalination plant, the designated uses and applicable surface water quality standards for the Corpus Christi Bay, the TCEQ's Tier 1 and Tier 2 antidegradation analysis and threatened and endangered species review.⁴⁹
 - The Interoffice Memorandum by Katie Cunningham of June 10, 2020 and the July 10, 2020 Interoffice Memorandum entitled Diffuser Review for Port of Corpus Christi Authority of Nueces County TCEQ Permit No. WQ0005253000 dated July 10, 2020 describing the TCEQ's CORMIX analysis of the proposed discharge.⁵⁰

⁴⁶ Exhibit AR-4, S-Application 000258.

⁴⁷ Exhibit AR-4, S-Application 000347.

⁴⁸ Exhibit AR-8, Tab F ED 0035 Revised – Tab F ED 0047 Revised.

⁴⁹ Exhibit AR-8, Tab F ED 0072 – 73.

⁵⁰ Exhibit AR-8, Tab F ED 0050 – 0059.

The Administrative Record also contains the Draft Permit,⁵¹ which requires the Port Authority to adhere to the following regulations, monitoring, and testing requirements. Any analysis of the proposed discharge that does not factor in these requirements is deficient.

- The Draft Permit specifies a daily maximum and daily average flow limits of 110 million gallons/day (“MGD”) and 95.6 MGD respectively.
- The effluent must be monitored daily for total suspended solids (“TSS”), total dissolved solids (“TDS”), chloride and sulfate by collection of a grab sample.
- pH requirement of not less than 6.0 standard units and not more than 9.0 standard units, and this requirement is to be monitored daily.
- Other Requirement 3 of the Draft Permit defines the mixing zone dimensions.
- Other Requirement 4 defines the dimensions of the zone of initial dilution (“ZID”) and the maximum effluent concentration at the ZID boundary.
- Other Requirement 5 prohibits the discharge of domestic wastewater from the Facility.
- Other Requirement 6 governs the disposal of sludge from the treatment process.
- Other Requirement 7 requires the Port Authority to inform the TCEQ 45 days prior to start up.
- Other Requirement 8 requires chemical analyses of discharges from the outfall within 60 days of initial discharge. The chemical analysis is required for over 71 toxic pollutants listed in the surface Water Quality Standard (“SWQS”) at 30 TAC § 307.6.
- Other Requirement 9 requires the Port Authority to develop and implement a study to determine the ambient water velocity at the outfall.
- Whole Effluent Toxicity (“WET”) testing that requires the Port Authority to submerge species of aquatic life in the proposed discharge at concentrations that far exceed the concentrations that any species would be exposed to for periods of 24 hours and the 48 hours. The 24-hour test requires that the test species be submerged in 100% effluent from the Facility for 24 hours and the 48-hour test requires the test species to be submerged in varying concentrations of effluent that are far in excess of the concentrations that any aquatic life will be exposed to in the CCSC.

⁵¹ Exhibit AR-8, Tab F ED 0001 – 0034.

b. The Port Authority introduced additional evidence during the hearing that confirms that the Proposed Discharge is consistent with TCEQ rules and is protective of the Marine Environment.

In addition to the AR, which establishes a prima facie demonstration that the Draft Permit is protective of aquatic life and human health and meets the TCEQ's rules and requirements, the Port Authority introduced testimony from Randy Palachek, Dr. Jordan Furnans, and Dr. Lial Tischler. The testimony of these witnesses demonstrates that the Draft Permit meets the Requirements and will not adversely affect the Marine Environment.

Randy Palachek

The Port Authority introduced the direct testimony of Randy Palachek. Among his many other qualifications, Palachek worked for the predecessor to the TCEQ in setting up the Texas SWQS in 1987 and 1991 and the Toxics Material Section (307.6) when it was first included.⁵² He also assisted in originally setting up the WET testing associated with wastewater discharge permits.⁵³ He was responsible for Section 307.8 of the Application Standards relating to toxic permitting including determining critical flows or dilution calculations.⁵⁴ Palachek developed the size and dimension requirements for the mixing zones, critical conditions to use in permitting, and the TexTox program.⁵⁵ Palachek wrote the policies and procedures that the TCEQ used to evaluate the Draft Permit and that are at issue in this proceeding. He was the lead individual at the predecessor to the TCEQ in the Water Quality Standards Section for the Texas SWQS, WET

⁵² APP-RP-1, 4:27 – 4:31. Palachek is a Vice-President at Parsons Environment & Infrastructure where he has worked for over 29 years. APP-RP-1, 1:21 – 1:31. He has a BS in Wildlife and Fisheries Sciences from Texas A&M and a Masters in Aquatic Biology with an emphasis on Aquatic Toxicology from Southwest Texas State University. APP-RP-1, 2:6 – 2:8. For over 30 years Palachek's professional work has focused on water quality analysis, aquatic toxicology, and permitting. APP-RP-1, 4:3 – 4:8.

⁵³ APP-RP-1, 5:1 – 5:21.

⁵⁴ *Id.*

⁵⁵ APP-RP-1, 6:21 – 6:24.

testing, and critical flows and dilution calculation. Palachek was instrumental in establishing and writing many of the regulations and requirements that govern the Draft Permit.⁵⁶

PAC and the Individual Protestants did not ask Palachek a single question on cross-examination. They did not challenge his background, his qualifications, his training, his experience with the TCEQ, or any of his opinions. They did not question his response to their own experts' opinions in which Palachek identified Protestants' experts' analytical gaps and data deficiencies. Palachek's testimony remains unrefuted on almost every issue he addressed.

Palachek's testimony establishes the following:

- Texas has established the Texas SWQS that have been approved by the TCEQ and EPA, and they ensure that all state waters are maintained and protected to the appropriate uses that they have been designated and that no activity degrades those waters.⁵⁷ The Texas SWQS were developed to be protective of aquatic organisms and human health through water consumption, fish consumption, recreational uses, including swimming and fishing and the designated uses established for each water quality segment.⁵⁸
- TCEQ has adopted rules to implement the TSWQS in issuing permits, and those rules are laid out in the Implementation Procedures ("IP") and other TCEQ rules.⁵⁹
- Pursuant to the IPs,⁶⁰ the TCEQ Modeling and Water Quality Standards Team establishes basic assumptions in a technical memorandum and the TCEQ's permit writer then uses that information to develop the draft permit limits based upon the TexTox program, technology-based limits, and EPA effluent guidelines.
- The Port Authority followed the TPDES Permitting Process in this case.⁶¹

⁵⁶ APP-RP-1, 4:27 - 5:21.

⁵⁷ APP-RP-1, 6:1 – 6:3.

⁵⁸ APP-RP-1, 9:3 - 9:6.

⁵⁹ APP-RP-1, 7:20 – 7:31.

⁶⁰ TCEQ established the IP to turn the aquatic life toxic standards into permit limits, determining when to put a limit in a permit, setting minimum analytical levels for effluent sampling, implementing mixing zones, and providing other procedures. APP-RP-1, 7:10 – 7:17.

⁶¹ APP-RP-1, 9:29 – 9:31.

- The effluent from the Facility will only have a de minimis effect on the increase in salinity in the CCSC given the volume of tidal flow and existing salinity ranges.⁶²
- The CCSC where the outfall will be located has naturally variable ambient salinity, and as a result a potential contribution of 1% in salinity would not cause adverse effects in the environment.⁶³ The plume of effluent will only affect a small portion of the CCSC.⁶⁴
- The Draft Permit requires the Port Authority to collect four samples within the first 60 days that the Facility is in operation and to submit those monitoring results to the TCEQ for further review and analysis. TCEQ will then review those results and impose any additional requirements to be protective of environment and human health.⁶⁵
- The Port Authority also agreed to WET testing requiring a 24-hour test once every six months for the first year and a 48-hour test on a quarterly basis for the first year as well.⁶⁶ The Port Authority is required to maintain a maximum dilution of 18.4% at the edge of the ZID.⁶⁷
- Effluent will not come into contact with humans because it is located at least 50 feet below the surface of the water.⁶⁸

Protestants did not ask Palachek a single question regarding this testimony or his response to PAC's experts' opinions.

Ambient Salinity Fluctuations. As discussed above, Palachek established that the normal fluctuations in ambient salinity in the area of the CCSC where the outfall will be located range from 18-39 under normal conditions. As is readily seen, the natural ambient salinity fluctuates significantly in a short time, repudiating any claim that the Marine Environment will be harmed by the outfall adding to that increase of 1% or less.

⁶² APP-RP-1, 13:4 – 13:15.

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ APP-RP-1, 15:18 – 15:27.

⁶⁶ APP-RP-1, 16:2 – 16:10.

⁶⁷ *Id.*

⁶⁸ APP-RP-1, 16:14 – 16:24.

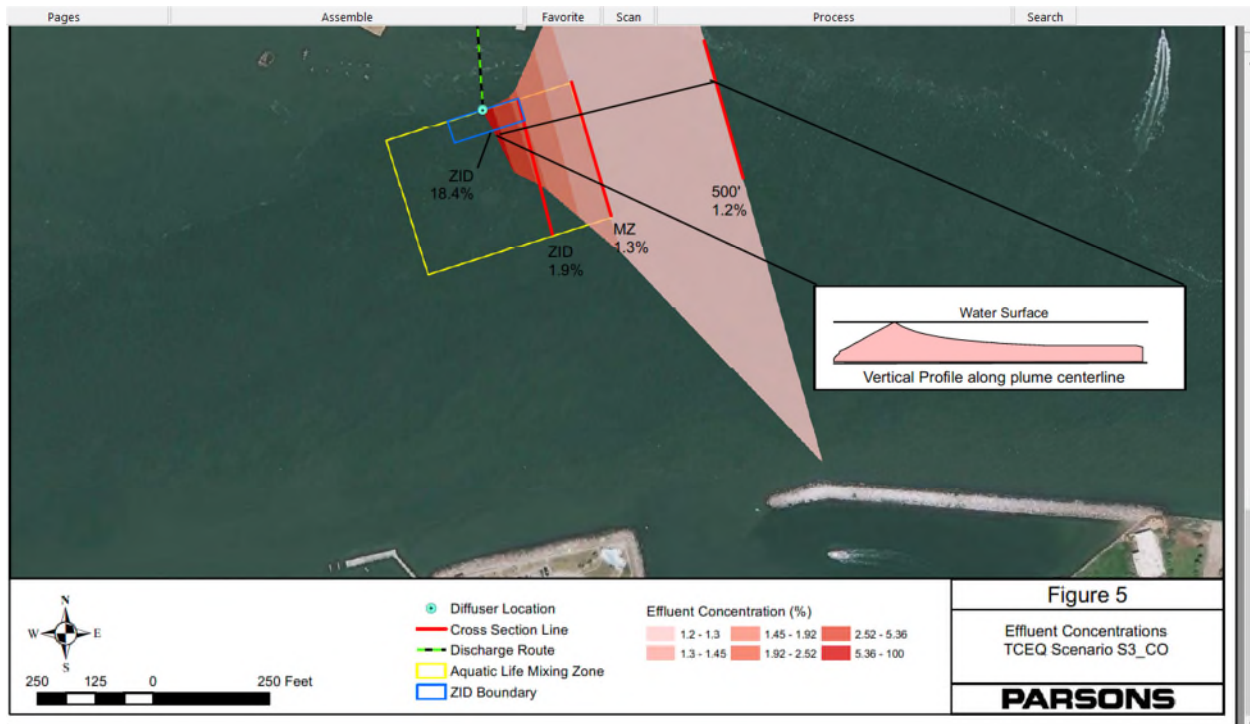
Figure 4 – Variability of Salinity Levels Over Time



Note: Data from Buoy 16492

This chart, which has not been challenged, establishes that the salinity in the CCSC fluctuates between 25 ppt, to 40 ppt, to less than 5 ppt and to 15 ppt. Given this natural fluctuation in the ambient salinity of the CCSC, the de minimis increase in the salinity from the proposed discharge, of less than 1%, cannot have an adverse effect on the Marine Environment.

Plume of Effluent. Palachek’s testimony regarding the extent of the effluent from the Facility is also unquestioned and unrefuted. He attached to his direct testimony a chart demonstrating the plume of effluent from the Facility. A picture in this instance is worth more than the thousands of words of PAC’s experts’ testimony.



This picture demonstrates that the plume of effluent will result in effluent concentrations of 18.4% at the edge of the ZID, 1.3% at the edge of the aquatic life mixing zone, and 1.2% at edge of the human health mixing zone. And the plume is located along the bottom and does not affect the upper parts of the water column, further decreasing its effect on aquatic life.⁶⁹ Protestants' claims to the contrary are not based upon data.⁷⁰ Again, Palachek's testimony on this issue remains unchallenged.

WET Testing. Among the many bases for Palachek's testimony that the proposed discharge is protective of the Marine Environment and complies with the applicable requirement is his analysis of the WET testing that the Port Authority voluntarily agreed to conduct. After discussing the monitoring and testing safeguards contained in the Draft Permit, Palachek

⁶⁹ TR 11/06/2020, 22:10 – 22:24.

⁷⁰ TR 11/06/2020, 22:9 – 22:23.

specifically discusses the WET testing.⁷¹ Specifically, he discusses the fact that the Port Authority is required to conduct WET testing in the first six months that will require the Port Authority to place representative aquatic life species in concentration effluent for 24 hours and 48 hours to determine any adverse effects on those organisms.⁷² These exposure times and effluent percentages are multiples of what any living organism would be exposed to in the ambient environment. If the discharge from the outfall fails the WET testing, the TCEQ can impose additional permit restrictions upon the outfall to provide additional protections for the Marine Environment.

Dr. Jordan Furnans' Testimony

Dr. Furnans' testimony verifies that the proposed discharge from the Facility will have a de minimis effect on the Marine Environment. He did this in two ways: he modeled the discharge using the SUNTANS, and then he confirmed both the SUNTANS modeling and his opinions by conducting a comparison of the mass of salt from the proposed discharge with the mass of salt from the ambient sea water in the CCSC. Both results confirm that the amount of salt that will flow into the CCSC from the Facility will have no more than a de minimis effect on the ambient water.

Dr. Furnans' qualifications cannot be—and have not been—challenged. He is the only retained expert witness who has experience with the SUNTANS modeling or who conducted his work before the contested case hearing. He has a doctorate in Civil Engineering, wrote his dissertation on improving hydrodynamic models, and is a licensed engineer in the State of Texas.⁷³

⁷¹ APP-RP-1, 15:13 – 16:10.

⁷² AR-8, Tab F ED 0019 – 0022.

⁷³ Dr. Furnans earned a BSE from Princeton University, a MSE in Environmental and Water Resources Engineering from the University of Texas at Austin, and Ph.D. in Civil Engineering from UT. He has served as an adjunct professor

He is an expert in applying numeric models to predict the availability, fate, and transport of water within a waterbody or system.⁷⁴ His professional work has been focused upon hydrodynamic models since 2001—for almost 20 years.

TCEQ procedures do not require that far-field modeling be conducted in connection with the Draft Permit. However, the Port Authority wanted further assurance that the proposed discharge would not have long-term impacts that the CORMIX modeling is not designed to investigate. So in 2018—long before the Commission considered requests for a contested case hearing in this matter—the Port Authority voluntarily commissioned a study of the potential long-term impacts from the proposed desalination discharge. Through a contract between the Port Authority and the University of Texas, Dr. Furnans conducted an extensive 3D modeling simulation of the Corpus Christi Bay system and the proposed discharge from the desalination facility using the SUNTANS model.⁷⁵ After conducting the SUNTANS modeling, Dr. Furnans concluded the following:

- SUNTANS modeling results indicate that within the vicinity of the Harbor Island discharge, vertical mixing of the water column is sufficient to prevent the formation of a persistent high-salinity water layer along the channel bottom.⁷⁶
- Because of the hydrodynamics where the outfall is located, bottom salinity values only increase, at most between 0 and 1 parts per thousand and do not accumulate.⁷⁷

in engineering at UT. He has worked for the Surface Water Resources Division of the Texas Water Development Board from 2003-2009 tasked with performing instream flow studies, doing hydrographic surveys of reservoirs, and performing studies of Texas bays and estuaries. APP-JF-1, 2:4 – 2:9. He is a licensed professional engineer in the State of Texas and is an expert in applying numerical models to predict the availability, fate, and transport of water within a waterbody or system and has been continuously working with such models since 2001. APP-JF-1, 3:13 – 13:22.

⁷⁴ APP-JF-1, 3:8 – 3:11.

⁷⁵ See APP-JF-1.

⁷⁶ APP-JF-1, 7:11 – 7:25.

⁷⁷ *Id.*

- Harbor Island desalination brine discharge, if properly constructed and maintained, will not likely result in environmental conditions that are potentially damaging to the Corpus Christi Bay ecosystem.⁷⁸
- After reviewing and validating the SUNTANS modeling, Dr. Furnans concluded that the current SUNTANS modeling is likely to under-predict mixing of the proposed desalination brine discharge.⁷⁹

In addition to the SUNTANS modeling, Dr. Furnans also calculated the total mass of the salt that the proposed discharge would release into the CCSC under the Draft Permit and compared it with the total mass of salt that flows into and out of the CCSC under normal ambient conditions at the proposed diffuser location.⁸⁰ From that analysis, Dr. Furnans has concluded that the salt mass flux from the brine discharge from the proposed discharge is always less than 1% of the salt mass flux from the ambient waters.⁸¹ The proposed discharge, even at the most extreme conditions, will increase the mass of total salt at the location of the discharge by less than 1% and under most conditions, the mass of salt from the proposed discharge is much less than 1%.⁸² Protestants did not challenge Dr. Furnans' salt mass balance establishing that the total amount of salt that the proposed discharge will contribute to the salt at the location of the discharge in the CCSC will be less than 1%. Dr. Furnans' salt mass balance establishes that at typical tidal velocities and/or at typical ambient salinity the total amount of salt that the proposed discharge contributes to the CCSC falls to well under 0.1% of the ambient salt mass.

⁷⁸ APP-JF-1, 8:13 – 8:15.

⁷⁹ APP-JF-1, 16:1 - 16:14.

⁸⁰ APP-JF-1, 21:5 – 21:32.

⁸¹ APP-JF-1, 23:11 – 23:13.

⁸² Dr. Furnans' salt mass balance calculations examine the proposed discharges contribution to the total salt mass under a variety of ambient salinities and tidal velocities. Under most conditions, the proposed discharge contributes far less than 1% of the total salt mass to the CCSC where the outfall is located. APP-JF-14.

Discharge as % Of Ambient Flux

Velocity (m/s)	Ambient Salinity (ppt)					
	15	20	25	30	35	40
0.05	0.98%	0.74%	0.59%	0.49%	0.42%	0.37%
0.1	0.49%	0.37%	0.30%	0.25%	0.21%	0.18%
0.15	0.33%	0.25%	0.20%	0.16%	0.14%	0.12%
0.2	0.25%	0.18%	0.15%	0.12%	0.11%	0.09%
0.25	0.20%	0.15%	0.12%	0.10%	0.08%	0.07%
0.3	0.16%	0.12%	0.10%	0.08%	0.07%	0.06%
0.35	0.14%	0.11%	0.08%	0.07%	0.06%	0.05%
0.4	0.12%	0.09%	0.07%	0.06%	0.05%	0.05%
0.45	0.11%	0.08%	0.07%	0.05%	0.05%	0.04%
0.5	0.10%	0.07%	0.06%	0.05%	0.04%	0.04%
0.55	0.09%	0.07%	0.05%	0.04%	0.04%	0.03%
0.6	0.08%	0.06%	0.05%	0.04%	0.04%	0.03%
0.65	0.08%	0.06%	0.05%	0.04%	0.03%	0.03%
0.7	0.07%	0.05%	0.04%	0.04%	0.03%	0.03%
0.75	0.07%	0.05%	0.04%	0.03%	0.03%	0.02%
0.8	0.06%	0.05%	0.04%	0.03%	0.03%	0.02%
0.85	0.06%	0.04%	0.03%	0.03%	0.02%	0.02%
0.9	0.05%	0.04%	0.03%	0.03%	0.02%	0.02%
0.95	0.05%	0.04%	0.03%	0.03%	0.02%	0.02%
1	0.05%	0.04%	0.03%	0.02%	0.02%	0.02%

Dr. Lial Tischler's Testimony

In addition to the testimony of Palachek and Dr. Furnans, Dr. Tischler's testimony proves that the proposed discharge from the Draft Permit does not violate a requirement and that it is protective of the Marine Environment. Dr. Tischler, who has a Ph.D. in Civil Engineering and a Masters in Environmental Engineering, has forty-seven years of experience in wastewater management and almost thirty-five years in diffuser design and mixing evaluations.⁸³ He has used CORMIX since its initial release by the EPA and has analyzed over 30 different effluent diffusers.⁸⁴ He worked for the Texas Water Development Board in 1970—just under fifty years ago—to work on modeling of dissolved oxygen, temperature and conservative constituents.⁸⁵

Dr. Tischler calculated the 24-hour tidal exchange flow rate for the CCSC where the outfall is located and compared the daily tidal exchange flow rate to the proposed maximum daily average flow rate for the desalination plant which is 96 MGD. He calculated that the proposed desalination

⁸³ APP-LT-1, 2:15 – 3:14, 7:8 – 7:26.

⁸⁴ APP-LT-1, 5:19 – 5:22.

⁸⁵ *Id.*; APP-LT-1, 6:24 – 6:31, 10:13 – 10:23.

plant flow is 0.5% of the daily flow through the channel.⁸⁶ Dr. Tischler's calculation that the outfall from the Facility is 0.5% remains unchallenged. He also provided illustrations that demonstrate the amount of channel cross-section that is encompassed by the plume.

These illustrations, which again are not challenged, provide a vivid demonstration of the de minimis impact that the effluent from the Facility will have on the Marine Environment. Dr. Tischler also testified as follows:

- The federal Clean Water Act required Texas to establish the SWQS to be protective of aquatic life, contact recreation and public water supply uses.⁸⁷ The EPA has approved the Texas SWQS, confirming that those SWQS are protective of aquatic life, contact recreation and public water supply uses.⁸⁸
- The Texas SWQS are established by the TCEQ to be protective not just of public health but also aquatic resources, terrestrial life and other environmental and economic resources.⁸⁹
- Based upon how the TPDES permitting works that he describes in his testimony and since the permit complies with the permitting process, Dr. Tischler testified that the proposed discharge from the Facility will be protective of water quality and the uses of the receiving waters.⁹⁰
- The Draft Permit will protect the exceptional aquatic life use classification for all surface waters upstream and downstream.⁹¹
- Discharges that meet the effluent limits and other terms and conditions of the Draft Permit will maintain the water quality consistent with protection of human health from ingestion of water, consumption of aquatic organisms, or contacts with skin.⁹²

⁸⁶ APP-LT-1, 29:23 – 30:5.

⁸⁷ APP-LT-1, 8:4 – 8:8, 8:25 – 8:30.

⁸⁸ *Id.*

⁸⁹ APP-LT-1, 9:20 – 9:24.

⁹⁰ APP-LT-1, 24:1 – 24:5.

⁹¹ APP-LT-1, 29:4 – 29:5.

⁹² APP-LT-1, 30:30 – 31:2.

There will be no adverse effect on aquatic organisms or terrestrial or aquatic life because the level of pollutants anticipated from the Facility will be too low.⁹³

TCEQ's Witnesses' Testimony

The direct testimony of TCEQ's witnesses also supports the Draft Permit. The Port Authority will not summarize that testimony in detail here as it understands that the TCEQ's Closing Argument will address the TCEQ's witnesses' testimony in more detail. Suffice it to say that the TCEQ's three witnesses (Shannon Gibson, Dr. M. Wallace, and Katie Cunningham) all confirmed that the Draft Permit underwent several layers of review within the TCEQ and that the Port Authority's Application and Draft Permit are protective of the Marine Environment and meet the TCEQ's rules and regulations, Standard Operating Procedures ("SOPs") and IP.

2. Protestants Failed to Produce Competent Evidence that the Proposed Discharge Violates a Requirement that Would Harm the Marine Environment.

The opinions of PAC's experts on the effect of the effluent on the Marine Environment are not credible for several reasons. First, PAC's experts have a bias against the Port Authority in general and in particular, the Facility. In their emails, PAC's experts' state that they desire to halt any further industrialization on the CCSC, revealing a level of bias that strikes at the core of their opinions. Second, PAC's experts have insufficient bases for their opinions. Their testimony establishes that they do not have sufficient information to rebut the Port Authority's prima facie case (as required by 30 Tex. Admin. Code § 80.17(c)(2)) regarding (1) the terms and conditions of the Draft Permit and the Texas SWQS; (2) the alleged amount that the proposed discharge will increase salinity in the CCSC; or (3) whether that unknown increase in salinity will cause harm to aquatic life. Absent this basic information, PAC's experts' opinions on the effect of the effluent

⁹³ APP-LT-1, 31:8 – 31:21.

amount to mere speculation. Finally, none of PAC's experts testify that the Draft Permit violates a Texas SWQS or other Requirement, and therefore, even if their testimony was credible, it would not be sufficient to overcome the filing of the AR or the Port Authority's and TCEQ's other evidentiary showing.

Dr. Erisman's Opinions Are Not Credible. Dr. Erisman admitted that as a homeowner and resident of Port Aransas, he was against the industrialization of Port Aransas local waters and would have been a willing PAC member.⁹⁴ He also admitted that his main goal as a scientist was to get funding for studies that he wanted to conduct on the CCSC and these studies are the same ones that he is claiming need to be completed prior to any further industrialization on the CCSC.⁹⁵ Consequently, Dr. Erisman's opinions are a thinly veiled attempt to gain financially by being retained to conduct additional studies if the Draft Permit is denied.

Dr. Erisman has no experience with CORMIX or SUNTANS and did not know what SUNTANS stood for.⁹⁶ Dr. Erisman has never been involved in setting up a hydrodynamic model.⁹⁷ He has never been involved with the Texas SWQS prior to this case, has not reviewed the Application in its entirety, and is not familiar with all aspects of the Draft Permit.⁹⁸ He also cannot provide any details of the WET testing contained in the Draft Permit.⁹⁹ He has not calculated the increase in salinity in the CCSC that the effluent from the Facility will cause.¹⁰⁰ Dr. Erisman does not know if there is a 25% chance or any other percentage chance that the effluent

⁹⁴ TR 11/04/2020, 70:8 – 70:18.

⁹⁵ *Id.*

⁹⁶ TR 11/04/2020, 66:13 – 66:23.

⁹⁷ TR 11/04/2020, 66:24 – 67:2.

⁹⁸ TR 11/04/2020, 67:11 – 67:16.

⁹⁹ TR 11/04/2020, 67:17 – 67:20.

¹⁰⁰ TR 11/04/2020, 67:21 – 68:19.

will harm the Marine Environment.¹⁰¹ He has no calculations to support his opinions.¹⁰² Critically and fatally defective to his opinions, he does not know whether he would still have the opinion that the effluent will pose a risk to fish in the CCSC if the Texas water quality standards are met.¹⁰³ Dr. Erisman did not offer an opinion that outfall from the Facility violated the salinity standards found in 30 Texas Administrative Code § 307.4.

Dr. Erisman’s opinions should be disregarded because “[r]eliable expert testimony must be based on a probability standard, rather than on mere possibility.”¹⁰⁴ And Dr. Erisman cannot even provide concrete testimony on the possibility of harm. An expert’s opinion must rely on a sound foundation of data, not mere speculation. An expert’s opinion is unreliable if it is based on subjective belief or unsupported speculation.¹⁰⁵ The evidentiary value of an expert’s testimony “is derived from its basis, not from the mere fact that the expert has said it.”¹⁰⁶ “If the expert brings only his credentials and a subjective opinion, his testimony is fundamentally unsupported and therefore of no assistance to the jury.”¹⁰⁷

Holt’s Opinions Are Not Credible. Holt admits that he is biased against the Facility, agreeing that he sent an email to PAC stating, “I probably should not say it out loud, but I too, am biased in my opinion about this facility. If nothing else, I just don’t want the damn thing built

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ TR 11/04/2020, 69:4 – 69:9.

¹⁰⁴ *Gharda USA, Inc.*, 464 S.W.3d at 349.

¹⁰⁵ *Whirlpool Corp.*, 298 S.W.3d at 642.

¹⁰⁶ *Houston Unlimited, Inc. Metal Processing v. Mel Acres Ranch*, 443 S.W.3d 820, 829 (Tex. 2014); *Nat. Gas Pipeline Co. of Am. v. Justiss*, 397 S.W.3d 150, 156 (Tex. 2012).

¹⁰⁷ *Cooper Tire & Rubber Co.*, 204 S.W.3d at 801 (citing *Havner*, 953 S.W.2d at 712).

here.”¹⁰⁸ This statement speaks for itself. But Holt’s refusal to admit his bias and PAC’s continuing to offer him as an expert witness says more about their candor and respect for the ALJs.

Holt has no experience with CORMIX, other modeling programs, or modeling industrial discharges.¹⁰⁹ He is not a toxicologist and is not familiar with the toxicity testing in the Draft Permit.¹¹⁰ He did not know whether the WET testing in the Draft Permit was sufficient or appropriate.¹¹¹ He does not consider himself a modeling expert.¹¹² He does not have information to estimate how large an effect the desalination facility will have on commercial fishing.¹¹³ He does not have an opinion as to either the absolute level of salinity or the percentage above that level of salinity that any larval species will be exposed to at the edge of the ZID, the mixing zone, or the human health mixing zone.¹¹⁴ Holt had not reviewed the Texas SWQS before offering his opinions in this matter, nor did he have an opinion on whether the proposed discharge would cause an exceedance of the Texas SWQS.¹¹⁵ Holt did not identify any requirement that the Draft Permit would violate.

Dr. Esbaugh’s Opinions Are Not Credible. Dr. Esbaugh has never reviewed a prior TPDES permit nor had any experience with modeling from a desalination facility.¹¹⁶ He cannot have any opinion about the alleged harmful effects from the proposed discharge because he testified (1) he would have to know the increase in salinity from the Facility before he could

¹⁰⁸ TR 11/04/2020, 257:4 – 257:15.

¹⁰⁹ TR 11/04/2020, 257:16 – 257:21.

¹¹⁰ TR 11/04/2020, 260:15 – 260:16.

¹¹¹ TR 11/04/2020, 260:23 – 261:11.

¹¹² TR 11/04/2020, 257:22 – 257:24.

¹¹³ TR 11/04/2020, 258:8 – 258:11.

¹¹⁴ TR 11/04/2020, 259:1 – 260:14.

¹¹⁵ TR 11/04/2020, 262:16 – 262:25.

¹¹⁶ TR 11/05/2020, 44:19 – 44:21.

determine the effects of the Facility on any species, and (2) he does not have an opinion on the overall increase in salinity from the Facility at any point in the CCSC.¹¹⁷ So in the absence of information about the increase in salinity from the proposed discharge in the CCSC, Dr. Esbaugh can have no credible opinion about whether that proposed discharge will adversely affect any species.

Dr. Esbaugh's calculations that he conducted two days before his deposition regarding his proposed no-effect concentration do not change his previous testimony. As Palachek established in his direct testimony, Dr. Esbaugh did not use the proper EPA protocol to calculate his predictive no effect concentration; he used the wrong data; and he mixed data sets inappropriately, which invalidate his predictive no effect concentration.¹¹⁸ Perhaps this is not surprising, considering that Dr. Esbaugh had never attempted such a calculation prior to doing so in this case.¹¹⁹ He could not testify that the proposed discharge would increase the salinity in the CCSC above even his own predictive no-effect concentration.¹²⁰ Dr. Esbaugh did at least mention Texas regulations but then refused to say that the Draft Permit violated those regulations, testifying only that the Draft Permit violated "the spirit" of those regulations.¹²¹ Finally, Dr. Esbaugh was unwilling to testify that any larval species would be subjected to lethal effects from being exposed to the proposed discharge.¹²²

Dr. Esbaugh's opinions should not be given credence because an expert's opinion is unreliable if "it is based on tests or data that do not support the conclusions reached."¹²³ If an expert's testimony

¹¹⁷ TR 11/05/2020, 45:13 – 46:3.

¹¹⁸ APP-RP-1, 29:10 – 30:3; TR 11/06/2020, 14:8 – 14:14.

¹¹⁹ TR 11/05/2020, 62:16 – 62:19.

¹²⁰ TR 11/05/2020, 62:20 – 63:1.

¹²¹ TR 11/05/2020, 42:9 – 43:11.

¹²² TR 11/06/2020, 52:17 – 54:9.

¹²³ *Gunn*, 554 S.W.3d at 662.

is not reliable, it is not probative evidence.¹²⁴ Dr. Esbaugh admitted that he cannot offer an opinion that the proposed discharge will adversely affect any species of fish in the CCSC because he does not know the amount that the proposed discharge will increase the salinity at any point in the CCSC. The rest of his opinions on this issue are based upon faulty analysis, faulty data, or both.

Dr. Stunz’s Opinions Are Not Credible. Dr. Stunz demonstrated his bias, testifying that he agreed with Dr. Erisman that as a homeowner and resident of Port Aransas, he was against the industrialization of the CCSH.¹²⁵ He also confirmed that he wanted to be cautious in joining PAC as a member, although he agreed with them because he wanted to retain his ability to appear as an “honest broker.”¹²⁶ His interest as a resident and homeowner precludes his serving as an honest broker in this matter regardless of whether he officially became a member of PAC.

The fact that Dr. Stunz appeared on *Shark Week* or other television shows cannot remedy the many deficiencies in his analysis or the gaps in the data. Dr. Stunz admits that it is impossible to make a prediction about what exposure any species will have for what period of time and what increase of salinity as a result of the proposed discharge.¹²⁷ This is the ultimate issue, and Dr. Stunz conceded he does not have sufficient data to offer an opinion on it. He also could not make predictions regarding whether an increase in salinity will occur in the CCSC beyond the mixing zone.¹²⁸ He does not have an exact opinion about whether there will be any harm to the aquatic species or the environment because the Application does not provide him with sufficient information to form that opinion.¹²⁹ He has not calculated the amount of time that any fish at any

¹²⁴ *Id.* at 662-63; *Havner*, 953 S.W.2d at 713.

¹²⁵ TR 11/05/2020, 81:11 – 82:5.

¹²⁶ TR 11/05/2020, 82:6 – 83:3.

¹²⁷ TR 11/05/2020, 83:18 – 84:4.

¹²⁸ TR 11/05/2020, 83:12 – 83 :17.

¹²⁹ TR 11/05/2020, 83:23 – 84:4.

level of development would be within the mixing zone.¹³⁰ And he is not familiar with the TCEQ's definition of a mixing zone.¹³¹ He also did not have information about the physical size of the plume of effluent that would be caused by the proposed discharge.¹³² Dr. Stunz's efforts to conjure up calculations during the hearing to support claims that he manufactured on the spot are not competent evidence, much less credible evidence.

B. The Proposed Discharge Will Not Adversely Impact the Health of Requestors and Their Families. (Issue 4b)

The Port Authority has established that there is no adverse impact from the proposed discharge on human health. The Port Authority provided information and data in the Application regarding the proposed discharge that the TCEQ then used to establish the limits and monitoring requirements of the Draft Permit consistent with the Texas SWQS.¹³³ It also provided the testimony of its expert witnesses who testified that the proposed discharge will not adversely affect human health.¹³⁴ The Texas SWQS are designed to be protective of human health in addition to the Marine Environment.¹³⁵ There is no serious dispute that the outfall will be located at least 50 feet below the surface of the CCSC. Therefore, there is no credible risk that any human will be directly exposed to the proposed discharge, or that even if direct exposure to the outfall of water with increased saline occurred, it would have an adverse effect on humans. Protestants have failed to produce any testimony, much less credible expert testimony, that the proposed discharge poses

¹³⁰ *Gunn*, 554 S.W.3d at 662-63; *Havner*, 953 S.W.2d at 713.

¹³¹ TR 11/05/2020, 85:1 – 85:6.

¹³² TR 11/05/2020, 85:7 – 86:16.

¹³³ Dr. Tischler described this process in his direct testimony. APP-LT-1, 13:17 – 22:29.

¹³⁴ Dr. Tischler testified that there will be no adverse consequences to humans from the proposed discharge because the Draft Permit will maintain water quality consistent with the protection of human health from ingestion of water, consumption of aquatic organisms, or contact with the skin. APP-LT-1, 30:30 – 31:2.

¹³⁵ APP-LT-1, 8-9.

a risk to Protestants or to human health. None of their experts' opinions attempted to argue that the proposed discharge would adversely affect human health.

C. The Proposed Discharge Will Not Impact Recreational Activities, Commercial Fishing, or Fisheries in Corpus Christi Bay and the Ship Channel. (Issue 4c)

As established in Issue 4a above, the proposed discharge does not violate a Requirement that adversely affects the Marine Environment.¹³⁶ The Port Authority's analysis of Issue 4a applies with even more force when addressing Issue 4c on whether the proposed discharge has an adverse impact on recreational activities, commercial fishing or fisheries in the CCSC in violation of a Requirement. If the proposed discharge will not have an adverse effect on the Marine Environment and complies with the Texas SWQS that are designed to be protective of the Marine Environment, then that discharge cannot have an adverse effect on recreational activities, commercial fishing or fisheries.¹³⁷ The testimony of the Port Authority's experts also establish that the proposed discharge meets the Requirements and will have only a de minimis effect on the CCSC. Dr. Furnans' testimony that the total increase measured by mass of the salt in the CCSC as a result of the proposed discharge would be less than 1% under the worst conditions was unchallenged.¹³⁸ Dr. Tischler's testimony that the proposed discharge amounts to 0.5% of the total tidal volume in the CCSC also remains unchallenged.¹³⁹

¹³⁶ The Port Authority incorporates by reference the arguments and authorities regarding Issue 4a in response to Issue 4c.

¹³⁷ As Palachek testified, Texas has established the TSWQS that have been approved by the TCEQ and EPA, and they ensure that all state waters are maintained and protected to the appropriate uses that they have been designated and that no activity degrades those waters. APP-RP-1, 6:1 – 6:3. The TSWQS were developed to be protective of aquatic organisms and human health through water consumption, fish consumption, recreational uses, including swimming and fishing and the designated uses established for each water quality segment. APP-RP-1, 9:3 – 9:6.

¹³⁸ APP-JF-1, 23:17 – 23:23

¹³⁹ APP-LT-1, 29:23 – 29:30.

The Port Authority has established that the proposed discharge will not adversely affect any recreational activities in the CCSC. It is undisputed that the proposed discharge will be located at least 50 feet below the surface of the water and that therefore, it will not interfere with boating or other surface water uses of the CCSC. As the Port Authority discusses in response to Issue 4a, the proposed discharge will not adversely affect the Marine Environment, and therefore, it will not have any effect on commercial fishing. The Draft Permit imposes testing, monitoring, and reporting requirements on the Port Authority that are designed to be protective of marine life including fisheries. PAC and the Individual Protestants have failed to introduce competent or credible evidence identifying any harm to fisheries as a result of the proposed discharge. Finally, the proposed discharge released pursuant to the requirements of the Draft Permit complies with the TCEQ's rules and regulations.

PAC's experts' testimony is not credible for the reasons discussed above on Issue 4a, and on Issue 4c that testimony is even more deficient. On commercial fishing and fisheries, PAC's experts raise questions and discuss potential harms without producing credible or competent opinions. They provide scant evidence regarding the effect of the proposed discharge on recreational activities.¹⁴⁰

¹⁴⁰ Dr. Erisman states that the Draft Permit has the "potential" to disrupt fish reproduction which will impact recreational fishing in the CCSC. PAC-1, 5:6 – 5:8. The rest of his testimony is phrased in terms of "potential" impact and his "concern" on the effect of the desalination discharge. PAC-1, 6:4 – 6:5, 6:15 – 6:16, 6:21, 7:4 – 7:8. These concerns regarding potential issues on fish reproduction and recreational fishing are nothing more than his speculation and for the reasons discussed above, his testimony is not competent or credible. Similarly, Holt offers his opinion that the proposed discharge could have significant impacts on fisheries and fishing in the CCSC. Holt is, of course, biased, and he admitted that he did not know whether the proposed discharge would cause an exceedance of the Texas SWQS or what amount of salinity the proposed discharge would cause in the CCSC outside of the mixing zone. Dr. Esbaugh admitted that in order for him to know the effect of the proposed discharge on any species, he would have to know the increase in salinity as a result of the proposed discharge. He also admitted that he did not know how much the proposed discharge would increase the salinity at any point in the CCSC. Dr. Stunz does not know whether there would be any increase in salinity beyond the mixing zone and that it is impossible to make predictions about what exposure any species will have for what period of time and what increase of salinity will harm them. Dr. Stunz did not calculate the amount of time that any fish at any level of development would be within the mixing zone from the outfall of the Facility. In sum, these experts' testimony is not credible and is not based on sound data or proper analysis.

D. The Application and Representations Contained Therein Are Complete and Accurate. (Issue 4d)

1. The AR and Additional Evidence Submitted by the Port Authority and TCEQ Executive Director Show that the Application and Representations Contained Therein are Complete and Accurate.

The Application is complete and accurate. The Application was received by TCEQ on March 7, 2018.¹⁴¹ After the permit was submitted, it underwent an initial review and as is its usual procedure, by correspondence sent to the Port Authority (notice of deficiencies), TCEQ informed the Port Authority of any deficiencies in the original submittal and any additional information TCEQ needed to process the Application.¹⁴² The Port Authority addressed each notice of deficiency.¹⁴³ Pursuant to TCEQ procedures, only after all deficiencies are addressed can the Application be declared administratively complete.¹⁴⁴ After the Port Authority addressed deficiencies and provided the additional information needed for processing, the Application was declared administratively complete by the TCEQ on June 26, 2018.¹⁴⁵

Furthermore, in their direct testimony, TCEQ witnesses Katie Cunningham and Shannon Gibson testified that the application was complete and accurate.¹⁴⁶ The Application review process includes independent verification by TCEQ of aspects of the information provided in the Technical Report.¹⁴⁷ The TCEQ independently verified those portions of the Application that are critical to its review, such as the discharge route, which is verified by the Water Quality Standards

¹⁴¹ AR-3 at 00240; ED-KC-6 at 5.

¹⁴² AR-4, S-Application 000175-179; S-Application 000192-194.

¹⁴³ AR-4, S-Application 000180-191, S-Application 000195-202.

¹⁴⁴ ED-SG-7 at 17.

¹⁴⁵ Exhibit AR-3 at 00240; ED-KC-6 at 5.

¹⁴⁶ ED-KC-1, 10:4 – 10:9; ED-SG-1, 12:12 – 12:16; TR 11/09/2020, 102:24 – 103:3; TR 11/10/2020, 83:10 – 83:15.

¹⁴⁷ ED-SG-1, 12:17 – 12:29.

Implementation reviewer using USGS topographic maps and ArcGIS, and the outfall coordinates, which are verified by the Water Quality Assessment reviewer.¹⁴⁸

2. Protestants Have Not Rebutted the Prima Facie Demonstration with Regard to Whether the Application is Complete and Accurate.

PAC has attacked the accuracy and completeness of the Application citing to typographical errors and minor computational issues.¹⁴⁹ The primary examples of the alleged inaccuracies are whether the Application properly lists the Port Authority as the owner and operator of the proposed facility,¹⁵⁰ whether the location of the outfall is accurate,¹⁵¹ whether there are minor errors in calculations in the modeling report,¹⁵² an alleged failure to provide additional information regarding the intake water after the decision to move the intake to the Gulf of Mexico,¹⁵³ and an alleged failure to provide information related to the local bathymetry, including a depression or hole and an eddy in the area of the outfall.¹⁵⁴ None of the alleged deficiencies with the Application are material, and Protestants have not demonstrated that any of the alleged inaccuracies or omissions result in “one or more of the provisions in the draft permit” violating a specifically applicable state or federal requirement, which relates to a matter referred by the commission as required by 30 Texas Administrative Code § 80.117(c)(3).

a. The Application Properly Lists the Port Authority as Owner and Operator.

¹⁴⁸ *Id.*

¹⁴⁹ *See, e.g.*, TR 11/10/2020, 83:16 – 83:25.

¹⁵⁰ PAC-18, 174:10 – 174:15.

¹⁵¹ PAC-3, 13:17-14:9; TR 11/10/2020, 83:22 – 83:25.

¹⁵² TR 11/10/2020, 83:16 – 83:21.

¹⁵³ PAC’s complaints about intake water are related to their allegations concerning the CORMIX modeling which is addressed in Section IV.G. below.

¹⁵⁴ PAC’s complaints about the local bathymetry relate to their allegations concerning the CORMIX modeling which is addressed in Section IV.G. below.

The Port Authority signed the application on March 5, 2018, as the owner and operator of the facility.¹⁵⁵ The Port Authority presently intends to be the owner and operator of the facility.¹⁵⁶ If at some point in the future the Port Authority reaches an agreement with some other entity to own or operate the proposed facility, it will request to amend the permit as the TCEQ regulations allow. At this time, no such agreement has been reached.¹⁵⁷ Protestants point to statements of individuals from the Port Authority who have questioned whether the Port Authority will ultimately own and operate the facility,¹⁵⁸ but have produced no evidence that there is any other entity that is under contract to own or operate the facility, because no such entity exists. As the Port Authority has stated repeatedly, there have been discussions with other parties about potentially operating the proposed facility and if, at some point in the future, those discussions result in an agreement to have someone else own or operate the proposed facility, it will amend the application.¹⁵⁹

b. The Location of the Outfall is Clearly Designated in the Application.

Protestants' questions regarding the location of the outfall amount to nothing more than typographical errors that have not confused the TCEQ in determining where the outfall is to be located. The Application correctly identified the location of the outfall by the latitude and longitude and that was understood by the TCEQ.¹⁶⁰ PAC's own expert, Bruce Wiland, acknowledged that the location of the outfall is accurately portrayed in multiple places in the

¹⁵⁵ PAC-18, 115:6 – 115:12.

¹⁵⁶ PAC-18, 119:10 – 119:16.

¹⁵⁷ PAC-18, 119:10 – 119:16, 171:5 – 171:16, 172:14 – 172:23.

¹⁵⁸ See PAC-24.

¹⁵⁹ PAC-18, 119:10 – 119:16, 171:5 – 171:16, 172:14 – 172:23.

¹⁶⁰ PAC-18, 182:1 – 182:14; TR 11/10/2020, 84:1 – 84:4.

Application.¹⁶¹ In the end, PAC’s argument regarding the outfall location comes down to an arrow on a map in one of the application reports that is facing the wrong way.¹⁶² On the other hand, the Application accurately identifies the outfall location on two other maps¹⁶³ and by latitude and longitude.¹⁶⁴ Taking the Application as a whole, there is no legitimate confusion regarding the location of the outfall. Absent from Protestants’ allegations of inaccuracies is a showing that the minor issues identified with the Application result in the permit violating any specifically applicable state or federal requirement as required to rebut the prima facie demonstration.¹⁶⁵ Other than the alleged inaccurate location of the diffuser and the ownership of the facility, all the other claims of inaccuracies are related to the CORMIX modeling and, as such, these are discussed in Section IV.G.

E. The Application Substantially Complied with Applicable Public Notice Requirements. (Issue 4e)

The requirements for public notice applicable to the Port Authority’s application for permit are found in 30 Texas Administrative Code § 39.551. The Port Authority met and exceeded the burden to substantially comply with these requirements, which is demonstrated in the AR and the evidence submitted by the Port Authority, the Executive Director, and even some of the evidence submitted by Protestants. Protestants, by contrast, submitted no evidence to refute this evidence that the Port Authority complied with the public notice requirements.

1. The Port Authority met and exceeded its evidentiary burden.

¹⁶¹ TR 11/04/2020, 218:25 – 219:5; 219:16 – 220:24, 222:21 – 223:14, 224:15 – 224:22, 225:11 – 226:14; *see also* PAC-3 BW-3.

¹⁶² *See* AR-4, S-Application 000357 (As noted by Dr. Tischler and others, the scale and the notation on the map at S-Application 000357 that the discharge is 300 feet from shore makes it clear that the discharge is not in the center of the ship channel where the arrow points. APP-LT-1, 47:4 – 47:15).

¹⁶³ AR-4, S-Application 000232, S-Application 000246.

¹⁶⁴ AR-4, S-Application 000258.

¹⁶⁵ 30 TEX. ADMIN. CODE § 80.17(c)(2).

The Port Authority met its prima facie burden to prove that the Port Authority complied with the applicable public notice requirements.

a. Port Authority’s prima facie burden has been met.

The Application is complete and provides all information required, including:

- Public Notice Information, including (1) the individual publishing the notices; (2) the contact in the notice; (3) the public place information; and (4) bilingual notice requirements.¹⁶⁶
- Affected Landowner’s Maps and Landowner Information (Attachments 4 and 5 to the Application), including (1) Landowners Maps (Figures 1 and 2);¹⁶⁷ and Landowners Disk¹⁶⁸ (a list of all names and addresses of landowners within 1 mile of discharge, and cross-referenced list).

AR-6 includes the published notices, as well as Affidavits of Publication by Corpus Christi Caller Times, Port Aransas South Jetty Newspaper, and Aransas Pass Progress newspapers,¹⁶⁹ and AR-3 includes the amended notice of hearings.¹⁷⁰

b. Additional evidence was introduced proving that the public notice requirements were met, exceeding its burden of proof.

The Executive Director filed the testimony of Shannon Gibson, who stated the Port Authority substantially complied with the public notice requirements.¹⁷¹

In addition, the Executive Director’s responses to public comments provide a chronology of the permit application and the public notices given, as well as information about where the notices were published and posted.¹⁷² The Executive Director also addresses comments 112-115

¹⁶⁶ AR-4, S-Application 000213–215.

¹⁶⁷ AR-4, S-Application 000232–233.

¹⁶⁸ AR-4, S-Application 000237–240.

¹⁶⁹ AR-6.

¹⁷⁰ AR-3.

¹⁷¹ ED-SG-1, 13:13-16:11.

¹⁷² ED-KC-6 at 5.

related to the public notice, verifying that the Port Authority complied with all applicable regulations relating the public notice:¹⁷³

- Comment 112 states that PAC felt that the public notice was deficient because the landowner map was incorrect, due to the collection and storage of sludge. The ED responded that he relied on the information provided in the application, but that TCEQ’s rules governing notice do not require notice to persons near the collection or storage of sludge. Even so, the ED states that the initial landowners map submitted on March 7, 2018, was incomplete but this was corrected by the Port Authority with revised maps dated June 29, identifying all the required landowners.¹⁷⁴
- Comment 113 stated that the public meeting was improperly scheduled in San Patricio County instead of Nueces County. The ED responded that Texas Water Code § 5.554 requires that the public meetings be held in the county where the proposed facility will be located. Although the public meeting was initially scheduled for the Aransas Pass Civic Center, when the Office of Chief Clerk discovered that it was not in Nueces County, the public meeting was rescheduled for the Port Aransas Civic Center in Nueces County.¹⁷⁵
- Comment 114 states that due to the location of the outfall, the NAPD should be published in Aransas County and the documentation available in Aransas County. The ED responded that the Port Authority complied with all applicable requirements for publication of the notices.¹⁷⁶
- Comment 115 stated the Notice was incorrect, because the discharge is going into the Corpus Christi ship channel, but the ED responded that the Notice was correct, as TCEQ’s rules require notices for TPDES permits to include a “general description of the location of each existing or proposed discharge point and the name of the receiving water,” citing 30 Tex. Admin. Code § 39.551(c)(4)(B).¹⁷⁷

Dr. Lial Tischler also stated in his pre-filed testimony that the Application complied with all notice requirements.¹⁷⁸ Dr. Tischler provided “Procedures to Implement Texas Surface Water

¹⁷³ ED-KC-6 at 87-91.

¹⁷⁴ ED-KC-6 at 87-88.

¹⁷⁵ ED-KC-6 at 88-89.

¹⁷⁶ ED-KC-6 at 89-90.

¹⁷⁷ ED-KC-6 at 91.

¹⁷⁸ APP-LT-1, 2:1 – 2:4.

Quality Standards,” which sets out the requirements for public notice and public comment opportunity.¹⁷⁹

2. Protestants have failed to proffer any credible evidence that the Port Authority violated a specifically applicable state or federal requirement.

30 Texas Administrative Code § 80.117(c) allows Protestants to rebut the prima facie demonstration by demonstrating that one or more provisions in the draft permit violates a specifically applicable state or federal permit. Protestants have not met that burden.

a. Protestants failed to identify a specifically applicable state or federal requirement violated by the Port Authority.

Protestants have identified no state or federal requirement specifically applicable to notice in their prefiled testimony or any testimony elicited in cross-examination.

b. Protestants have failed to present competent evidence of any violation.

Protestants cross-examined Ms. Gibson, but the questions related only to what type of amendment to an application would engender new notice requirements.¹⁸⁰ The same is true of Protestants’ submission of Ms. Gibson’s deposition testimony. Protestants asked hypothetical questions about what might happen after the permit issued, and what would be considered a minor vs. major amendment, and whether public notice would be required.¹⁸¹ Neither line of questioning elicited evidence that the Port Authority had violated any specifically applicable state or federal requirement relating to public notice.

¹⁷⁹ APP-LT-4 at 69.

¹⁸⁰ TR 11/09/2020, 68:14 – 71:11 (discussing whether a minor or major amendment would require new notice to landowners); 98:11 – 98:13 (stating that expedited permits have public notice requirements).

¹⁸¹ PAC-14 at 13–15.

The subject was raised in the Sarah Garza corporate representative deposition as well, but the testimony submitted by Protestants proves nothing other than that the Port Authority submitted a page in the Application with a landowner map based on the location of the outfall.¹⁸²

The deposition excerpts submitted by Protestants from Joel Camann's deposition (which included excerpts from the White Paper that was also submitted as PAC-22) actually add to the Port Authority's proof that the notices were properly issued.¹⁸³

F. The Draft Permit is Consistent with the Texas Coastal Management Programs Goals and Policies. (Issue 4f)

Chapter 281, Subchapter B requires the TCEQ to comply with the Coastal Coordination Act ("CCA"). Section 281.40, titled "Purpose," states that the purpose of this subchapter is "to identify actions which are subject to review for consistency with the goals and policies of the Texas Coastal Management Program pursuant to the Coastal Coordination Act, Texas Natural Resources Code Subchapters C and F, Chapter 33, and rules of the Coastal Coordination Council contained in 31 Texas Administrative Code, Chapters 501 and 505."¹⁸⁴

This purpose is to be accomplished by "adequately identifying, addressing, and resolving consistency issues to the maximum extent practicable prior to final agency action in order to avoid the referral of an agency action to the council for review and, thus, avoid any unnecessary delay in providing a final agency action with respect to a request or application for a permit, order, or other authorization from the commission."¹⁸⁵

¹⁸² PAC-18 at 24.

¹⁸³ PAC-21 at 34, 39; PAC-22 at 4, 9.

¹⁸⁴ 30 TEX. ADMIN. CODE § 281.40.

¹⁸⁵ *Id.*

Section 281.41 states that “it is a condition of commission approval” of the proposed action that such action “if applicable” “must be consistent with the goals and policies” of the Coastal Management Program (“CMP”). “The executive director shall review such applications for consistency with the CMP and provide a summary of such analysis and other statements in the draft permit and technical summary or referral to commission as provided in § 281.21 and § 281.22 of this title....”¹⁸⁶

1. The Port Authority met and exceeded its evidentiary burden.

The Port Authority met its prima facie burden to prove that the Application complies with the Texas Coastal Management Program’s goals and policies. The Draft Permit provides that, among other considerations, consistency with the Coastal Management Plan was considered.¹⁸⁷ It states the “executive director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.”¹⁸⁸ The fact that the ED had performed this review is also stated in the “Other Requirements” section: “The executive director reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations

¹⁸⁶ 30 TEX. ADMIN. CODE § 281.41 (emphasis added); *see also* 30 TEX. ADMIN. CODE § 281.43(a) “Consistency Determination” (“A permit or other document approving or authorizing an action listed in § 281.45 of this title (relating to Actions Subject to Consistency with the Goals and Policies of the Texas Coastal Management Program) shall include a statement providing either a consistency determination or a determination of no adverse effect....”); 30 TEX. ADMIN. CODE § 281.43(b) (“The executive director shall review applicable requests and applications for consistency with the CMP goals and policies and provide a brief summary of such analysis and other statements and recommendations in the draft permit....”); 30 TEX. ADMIN. CODE § 281.43(c) (“For actions that exceed the threshold for possible referral to the council as provided in §281.46 of this title . . . a written explanation supporting the determination made under subsection (a) of this section shall be provided in the order, permit, or other written authorization.... describ[ing] the basis for the agency’s determination....”).

¹⁸⁷ AR-8, Tab F ED 0005.

¹⁸⁸ *Id.*

of the General Land Office and determined that the action is consistent with the applicable CMP goals and policies.”¹⁸⁹

2. The Port Authority introduced additional evidence, exceeding its burden of proof.

Additional evidence that the Draft Permit is consistent with the CMP is found in the pre-filed testimony of Shannon Gibson, who stated that she performed this evaluation and determined that the Draft Permit is “above threshold” and “was determined to be consistent with the Program’s goals and policies.”¹⁹⁰

The Executive Director also provided comments regarding the CMP, verifying that the Application is consistent with the goals and policies of the CMP:

- Comment 122 asked whether the state has an obligation to use public land in the best way for the citizens of Texas, and the Executive Director responded that the ED reviewed the application for consistency with the Texas Coastal Management Program (CMP) goals and policies, determining that the application is consistent with the applicable CMP goals and policies.¹⁹¹
- Comment 38 stated that the Executive Director failed to perform the consistency evaluation as required by the CMP; the Executive Director responded that because the application for the new permit asked for authorization to discharge water treatment wastes directly into Corpus Christi Bay, Segment 2481, it is not subject to EPA categorical effluent standards and Segment 2481 is not considered a priority segment under the CMP. The Executive Director also stated he reviewed this action for consistency with the goals and policies of the Texas CMP in accordance with the regulations of the GLO and determined that the action is consistent with the applicable CMP goals and policies.¹⁹²

3. Protestants have failed to proffer any credible evidence that the Port Authority violated a specifically applicable state or federal requirement.

¹⁸⁹ AR-8, Tab F ED 0014.

¹⁹⁰ ED-SG-1, 16:12-31.

¹⁹¹ ED-KC-6 at 95.

¹⁹² ED-KC-6 at 36.

30 Texas Administrative Code § 80.117(c) allows protestants to rebut the prima facie demonstration by competent evidence that one or more provisions in the draft permit violates a specifically applicable state or federal permit. Protestants have not met that burden. In the exhibits presented by Protestants, as well as the cross-examination, Protestants failed to identify any specifically applicable state or federal requirement related to the CMP goals and policies that had been violated by the Port Authority. Protestants failed to submit competent evidence of the Port Authority's violations of a specifically applicable state or federal requirement related to the goals and policies of the CMP.

G. The Modeling Complies with Applicable Regulations to Ensure the Draft Permit is Protective of Water Quality, Including Utilizing Accurate Inputs. (Issue 4g)

The CORMIX modeling performed in connection with the Draft Permit complies with the applicable regulations found in the TCEQ's IP and the CORMIX Standard Operating Procedures for the use of CORMIX ("CORMIX SOP"), and the water quality based effluent limits that are derived with the use of the CORMIX modeling ensure that the Draft Permit is protective of water quality. While admitting that the TCEQ followed the applicable CORMIX SOP, PAC seeks to require the TCEQ to go beyond the state and federal requirements to meet some as yet unspecified criteria or to disregard the CORMIX modeling entirely.

1. The TCEQ Properly Followed the Implementation Procedures and CORMIX SOP in Performing the CORMIX Modeling.

The TCEQ's IP recognize that diffusers may increase mixing and lower critical dilutions and that CORMIX is the model most commonly used to design diffusers and evaluate the resulting mixing conditions.¹⁹³ In addition to the IP, the TCEQ has developed the CORMIX SOP for

¹⁹³ ED-KC-5 at 82 (The IP call for evaluation of mixing conditions under both summer and winter conditions.).

TPDES permits where a diffuser is utilized to disperse the effluent.¹⁹⁴ In evaluating whether the applicable procedures were followed, the TCEQ reviews the TCEQ's modeling in the context of the CORMIX SOP. As described in the direct testimony by Katie Cunningham, the mixing analysis upon which the requirements of the permit were established was performed by the TCEQ.¹⁹⁵ It is essentially undisputed that the modeling performed by the TCEQ complied with the IP and the CORMIX SOP.¹⁹⁶ In addition to Cunningham's direct testimony, Dr. Lial Tischler also evaluated the TCEQ's determination of the critical conditions and the Diffuser Review and also found that they were consistent with the TCEQ IP and CORMIX SOP.¹⁹⁷

In their attempt to rebut the prima facie demonstration and additional evidence regarding the CORMIX modeling, Protestants do not present credible evidence that one or more of the provisions in the Draft Permit (1) violates a specifically applicable state or federal requirement that (2) relates to the modeling issue referred by the Commission.¹⁹⁸

2. Protestants' Claims of Incomplete or Inaccurate Modeling Inputs are Incorrect or Irrelevant.

In connection with the CORMIX modeling, Protestants' claim that the Application is not complete, and that the CORMIX modeling does not have accurate inputs because the modeling

¹⁹⁴ ED-KC-1, 6:1 – 6:6, *see also* AR-4, S-Application 000371–375.

¹⁹⁵ ED-KC-1, 2:11 – 2:17, 4:19 – 9:15.

¹⁹⁶ TR 11/04/2020, 132:2 – 132:25; *see also* ED-KC-5 at 82.

¹⁹⁷ APP-LT-1, 29:7 – 29:19.

¹⁹⁸ While the initial interpretation of the CORMIX results by Wood and by the TCEQ incorrectly reported the percentage of effluent at the x-axis (downstream) boundary of the Zone of Initial Diffusion (“ZID”) instead of the y-axis (across-stream) boundary, when this issue was discovered, the TCEQ reran the modeling and issued a revised mixing analysis memo correcting this mistake. ED-KC-1, 10:23 – 11:31. The Draft Permit was revised to reflect the revised percentage of effluent at the ZID, making the initial misreading of the CORMIX results moot. ED-KC-1, 11:25–11:31. The impact of this change to the Draft Permit is that the resulting permit allows lower pollutant concentrations than did the original draft permit, making the permit more protective of the marine environment. TR 11/09/2020,81:25-83:8, 202:8-2020:17. While logically this revision should have been welcomed by Protestants, they instead continue to try and focus on the initial mistake even though it has been corrected.

does not consider local bathymetry (the depth of the hole, the slope of the bottom, and the eddy) and did not include new data specifically from the water in the Gulf. These arguments are a red herring.

a. Excluding the hole and the eddy does not make the CORMIX inputs inaccurate.

CORMIX does not provide a mechanism for including information about specific local bathymetric features such as an eddy or a scour hole.¹⁹⁹ So while the TCEQ was informed of the eddy and the resulting depression in the area of the outfall,²⁰⁰ there was no reason to include the existence of the local bathymetric features in the original application, or to supplement the Application to include such information. This is true because (1) the information about the eddy or the scour hole would not have changed the inputs to the modeling; and (2) the existing modeling results are more conservative than if it were possible to include the impacts of the hole and the eddy to the actual mixing of the effluent.²⁰¹ CORMIX is the only model the TCEQ uses for predicting effluent percentages for developing permit limits with diffusers. The fact that there are individual factors in the local bathymetry that cannot be directly modeled by the CORMIX software does not impair the use of CORMIX in this situation because the existence of those factors means that the modeling output is overly conservative, and using the overly conservative results for calculating permit limits means that the permit is more protective than it would otherwise be.

b. The movement of the intake to the Gulf does not change the modeling equation.

¹⁹⁹ APP-LT-1, 33:28 – 33:31 (CORMIX does not model the circulation and high current velocities of an eddy.); 47:27 – 48:6 (Computational limits of CORMIX may require a bottom depth used in the model to be less than the actual depth, which results in predicted dilution that is lower than actual dilution.).

²⁰⁰ ED-KC-7.

²⁰¹ APP-LT-1, 33:18 – 33:31 (Dr. Tischler confirmed that CORMIX does not model the circulation and high current velocities of an eddy. This testimony remains unrefuted.); 47:27 – 48:6 (Computational limits of CORMIX may require a bottom depth used in the model to be less than the actual depth, which results in predicted dilution that is lower than actual dilution.).

Similarly, the movement of the intake to the Gulf did not necessitate amending the Application to include specific temperature and salinity data from the Gulf. As explained by the Executive Director's Response to Comments, the salinity is essentially the same between the channel and the Gulf location, so the change in intake locations is not expected to change the results of the analysis.²⁰² This was confirmed by the testimony by Palachek and the site data comparison performed by Parsons showing that the relevant data from the Gulf of Mexico and the Lydia Ann Channel shows that there is no statistically significant difference for modeling purposes between the intake water from the Gulf and the intake water from the channel.²⁰³ Palachek's testimony on this issue went unchallenged. Furthermore, Protestants' focus on the intake water is unwarranted in terms of the TCEQ's process for setting permit limits to ensure protection of the receiving waters. As explained by Shannon Gibson, the TCEQ's determinations on limits are not dependent on the intake water, they are based on sampling of the discharge itself, which is determined when there is an actual discharge.²⁰⁴

Protestants' focus on these supposed inaccuracies and incomplete information belies the central question: whether the modeling "complies with applicable regulations to ensure that draft permit is protective of water quality."²⁰⁵ The CORMIX modeling complied with the IP and the CORMIX SOP, and Protestants have produced no evidence to the contrary.

3. Having No Evidence of Violations in Implementing the CORMIX SOP, Protestants Improperly Attempt to Discredit the CORMIX SOP.

²⁰² ED-KC-6 at 82.

²⁰³ APP-RP-1, 18:24 – 19:20; *see also* APP-RP-8; TR 11/06/2020, 13:5 – 14:7.

²⁰⁴ TR 11/09/20, 16:3 – 18:10.

²⁰⁵ AR-2, 00003, ¶ 4.g.

Under 30 Texas Administrative Code § 80.117, a party can seek to rebut the prima facie demonstration by showing that there was a violation of applicable state or federal requirements related to one of the issues referred by the Commission.²⁰⁶ While maintaining that it is inappropriate to use CORMIX for modeling the effluent discharge from the proposed facility, Protestants attack the TCEQ CORMIX SOP and the IP related to the use of CORMIX. This attack has two prongs. First, they claim that the TCEQ should have run CORMIX for conditions in the fall and spring. Second, they claim that the TCEQ should have run CORMIX using different ambient velocities. Protestants cannot show that the TCEQ violated any state, or federal requirements in performing the CORMIX modeling and have not cited to any state or federal requirement for the TCEQ to go beyond the CORMIX SOP. Therefore, Protestants' complaints regarding the way in which the CORMIX modeling was performed do not rebut the prima facie demonstration.

a. TCEQ's Modeling Followed the CORMIX SOP by Considering the Summer and Winter Conditions.

The TCEQ IP call for CORMIX modeling to consider the summer and winter conditions.²⁰⁷ The CORMIX SOP also provide that the summer and winter conditions should be used for determining the critical conditions.²⁰⁸ It is undisputed that the TCEQ's modeling complied with the applicable regulations regarding which seasons that CORMIX modeling should evaluate to determine the critical conditions. Katie Cunningham testified that, consistent with the CORMIX SOP, she considered ambient conditions for the 5th and 95th percentiles for temperature and salinity for the summer and winter to arrive at the critical conditions for purposes of the CORMIX

²⁰⁶ 30 TEX. ADMIN. CODE § 80.17(c)(2).

²⁰⁷ ED-KC-5 at 82.

²⁰⁸ AR-4, S-Application 000371-75.

modeling.²⁰⁹ PAC witness Joseph Trungale admitted that the TCEQ and the Port Authority's consultants followed the CORMIX SOP to the letter.²¹⁰ Despite the clear instructions in the TCEQ IP and CORMIX SOP to consider data from the summer and winter (and there being no state or federal requirement for the modeling to consider data from the fall and spring seasons), PAC witnesses Trungale and Wiland nevertheless criticize the TCEQ and the Port Authority for following the CORMIX SOP.²¹¹

In addition to constituting an improper attack on the CORMIX SOP, Protestants' claims are factually incorrect. Protestant witness Wiland claims that fall and spring conditions should be considered for CORMIX modeling because certain conditions in the fall show the lowest delta between the ambient and effluent densities.²¹² However, to get the lower density delta in the fall, Wiland had to resort to non-standard procedures for calculating the applicable temperature and salinity percentiles.²¹³ Using the standard method for calculating the statistics, the critical cases are in the summer and winter.²¹⁴ Protestants' manipulation of the statistical data notwithstanding, the TCEQ followed the applicable rules regarding CORMIX modeling, and Protestants' claims that the TCEQ should have considered non-standard procedures do not meet the burden of showing that the permit violated applicable state or federal requirements to rebut the prima facie demonstration.

b. The TCEQ's Modeling Utilized the Appropriate Ambient Velocity.

²⁰⁹ ED-KC-1, 6:24 – 7:2.

²¹⁰ TR 11/04/2020, 132:2 – 132:25.

²¹¹ PAC-3, 24:7 – 24:11, TR 11/04/2020, 111:1 – 111:12.

²¹² PAC-3, 24:12 – 24:24.

²¹³ TR 11/04/2020, 133:22 - 135:6; 211:17 - 217:17.

²¹⁴ APP-LT-1, 37:11 – 37:29.

Where there is no data regarding the ambient velocity of the receiving water at the location of the outfall, the CORMIX SOP call for the use of a relatively slow, conservative ambient velocity for the receiving water.²¹⁵ As Katie Cunningham explained, because there is no specific ambient velocity data for the location of the diffuser, she used the default ambient velocity of 0.05 meters per second which is consistent with the CORMIX SOP and the methods used by the TCEQ to review other diffuser discharges into tidal waters.²¹⁶ The TCEQ properly utilized the CORMIX SOP to establish the expected effluent percentages which were used to determine the WQBELs for toxic pollutants.²¹⁷ PAC's modeling witnesses Trungale admits that there is no requirement in the CORMIX SOP to provide ambient water velocity data at the point of the discharge.²¹⁸ He also admits that the TCEQ followed the CORMIX SOP by using 0.05 m/sec for the ambient velocity.²¹⁹ Trungale asserts that ambient velocity data should be collected for the area of the discharge, but he did not review the Draft Permit with enough care to realize that the Draft Permit requires the Port Authority to collect ambient velocity data at the point of the discharge.²²⁰ Having properly utilized the CORMIX SOP to determine the effluent percentage and establish the WQBEL, the TCEQ could have stopped there; but it went further. The TCEQ noted that questions were raised regarding the potential impacts of changing ambient velocities in public comments, and as a result, added Other Requirement 9 to the Draft Permit which requires the Port Authority to conduct a

²¹⁵ ED-KC-1, 12:26 – 13:9.

²¹⁶ ED-KC-1, 12:26 – 13:9, 14:32 – 15:16; TR 11/10/2020, 14:15 – 15:4.

²¹⁷ ED-KC-1, 5:8 – 5:18; APP-LT-1, 18:4 – 18:17, 34:11 – 34:15 (The modeling performed by the TCEQ followed standard TCEQ procedures for modeling a diffuser at critical conditions, which is to use a low ambient velocity such as the 0.05 meter per second velocity which occurs on either side of slack tide.); *see also* APP-LT-4.

²¹⁸ TR 11/04/2020, 114:2 – 114:9.

²¹⁹ TR 11/04/2020, 114:9 – 115:7.

²²⁰ TR 11/04/2020, 115:8 – 116:19.

study and report on the ambient water velocity at the location of the diffuser (the “Ambient Velocity Study”).²²¹

PAC’s expert Trungale admits that TCEQ followed the CORMIX SOP requirements by using 0.05 m/sec for the ambient velocity and that actual ambient velocity is not required prior to permitting.²²² But PAC continues to assert that the Draft Permit should be subject to different unwritten CORMIX modeling requirements that are different from the TCEQ’s CORMIX SOP and that TCEQ should have run CORMIX modeling at a variety of different ambient velocities.²²³ PAC asserts that the “preliminary analysis” performed by Trungale indicates that the mixing predicted by CORMIX is worse at higher ambient velocities.²²⁴ Of course, Trungale admitted the ambient velocities at the location of the outfall should be determined, and therefore, his use of higher ambient tidal values at the outfall cannot be supported by actual data in addition to being inconsistent with the TCEQ CORMIX SOP. Trungale’s use of these higher ambient velocities also ignores the presence of the eddy in the area and the scour hole that will mix the “plume much more thoroughly than the CORMIX model predicts” and that “the salinity concentrations predicted by CORMIX in the eddy are much higher than the actual salinities that will occur.”²²⁵ Dr. Tischler confirmed that “TCEQ has their SOP, and the current design meets their SOP.”²²⁶ He also testified

²²¹ ED-KC-1, 13:10 – 13:31; ED-KC-6 at 12; Exhibit AR-8 Tab F ED 0015.

²²² TR 11/04/2020, 114:2 – 115:7

²²³ PAC-2, 10:14 – 10:25; 15:5 – 15:16; PAC-3, 24:25 – 25:7.

²²⁴ PAC-2, 16:11 – 16:21; TR 11/04/2020, 115:8-12

²²⁵ APP-LT-1, 33:24 – 33:31.

²²⁶ TR 11/05/2020, 265:18 – 265:19. Dr. Tischler testified that he conducted modeling using Trungale’s alternate ambient tidal velocities, and that if you assume Trungale’s different tidal velocities, then it may be difficult for the diffuser to meet the effluent limitations in the Draft Permit. TR 11/05/2020, 258:13 – 259:9, 264:10 – 265:20. But, of course, the diffuser in the Draft Permit was not designed to meet hypothetical ambient velocities but to comply with the TCEQ’s SOP for CORMIX modeling that make the conservative assumption of an ambient tidal velocity of 0.05 m/sec. Dr. Tischler’s testimony about Protestants’ mere hypotheticals cannot be divorced from his other testimony that the existing diffuser design complies with the TCEQ’s requirements and that the Draft Permit is protective of the Marine Environment and consistent with TCEQ’s SOP.

that it contains conditions that adequately protect water quality in the CCSC and the Marine Environment.²²⁷

Protestants have not provided evidence that the TCEQ's use of CORMIX in compliance with the IP and the CORMIX SOP will violate any applicable requirement. A contested case hearing is not the forum to challenge the agency's standards and procedures. Because they are unable to show that the modeling violated any applicable rules, Protestants instead attack the use of CORMIX itself.

4. Protestants' Attacks on the Use of CORMIX are Misguided.

In addition to attacking the TCEQ's CORMIX SOP, PAC's witnesses have taken the position that the CORMIX modeling program is unsuited for modeling the discharge of the Facility because (1) the area of the discharge is tidal in nature, (2) there is an eddy in the area of the discharge, which (3) has resulted in a depression or hole near the expected discharge location.²²⁸ Protestants' complaints are misguided, and none of these features render CORMIX inappropriate for use in modeling the discharge from the proposed desalination facility.

a. CORMIX is Used Regularly in Tidally Impacted Receiving Waters.

It is undisputed that the receiving waters at the location of the proposed discharge are tidal in nature, meaning that the ambient current changes from incoming (flood) tide to outgoing (ebb) tide. The TCEQ readily acknowledges that there is a tidal influence, but as explained by the TCEQ Executive Director and by TCEQ's modeler Katie Cunningham, the TCEQ's CORMIX SOP do not address tidal reversing because the phenomenon only occurs for a few minutes each day

²²⁷ APP-LT-1, 24:7 – 24:23.

²²⁸ PAC-2, 13:17 – 15:4, PAC-3, 21:11 – 22:21.

following each slack tide.²²⁹ As such, it is more representative to look at effluent concentrations under steady state conditions because the duration of exposure corresponding to acute toxicity is up to 96 hours in the initial regulatory mixing zone.²³⁰ As Dr. Tischler explained, CORMIX has been used successfully in numerous cases in tidally influenced receiving waters because any momentary re-entrainment of effluent during the reversing tide is rapidly dispersed.²³¹ While Protestants' witnesses express concern about the potential for re-entrainment of effluent, they produced no evidence regarding the amount of effluent that might be re-entrained or that re-entrainment would adversely impact the salinity levels.²³²

b. The Hole and the Eddy in the Vicinity of the Discharge Do Not Make CORMIX Unreliable.

The discussion of the local bathymetry in the form of an eddy and the resulting scour hole permeates the opinions of PAC's witnesses Trungale and Wiland. Their arguments focus on CORMIX's inability to exactly duplicate the existence of the deeper depression and the lack of a flow class for an eddy in the CORMIX modeling. While it is true that the CORMIX modeling does not attempt to replicate the hole and the eddy, what PAC's witnesses ignore is the fact that hydrodynamic modeling such as CORMIX does not require an exact replication of the existing conditions to provide meaningful modeling results.²³³

PAC argues that the scour hole in the area of the discharge invalidates the CORMIX modeling because CORMIX does not account for this type of bathymetric feature. As pointed out by Trungale, the CORMIX model does not allow input of an upward sloping channel, as would

²²⁹ ED-KC-1, 12:11 – 12:25, ED-KC-6 at 12.

²³⁰ *Id.*

²³¹ APP-LT-1, 29:14 – 29:19; 48:8 – 48:20.

²³² TR 11/04/2020, 116:20 – 117:24.

²³³ APP-LT-1, 38:23 – 38:27.

occur in the immediate area of the diffuser outfall because of the hole.²³⁴ But as explained by Dr. Tischler, it is necessary to reduce the complexity of the physical environment to apply a computer model to a physical environment such as a bay or estuary.²³⁵ Dr. Tischler, who is the only witness with experience actually designing a diffuser, explained that the process of reducing the complexity is called schematization and is a requirement of all hydrodynamic computer models. Perhaps because of their lack of experience with the CORMIX model,²³⁶ or their failure to look at the underlying impact of these related features, Wiland and Trungale argue incorrectly that the CORMIX model should not be used, despite the admission that there is no better replacement.²³⁷ Protestants' complaints are not a valid reason to disregard the CORMIX modeling.

c. CORMIX was Appropriately Used for the Review of the Application.

Dr. Tischler testified that CORMIX was specifically designed to model diffusers and receiving waters such as this where boundary conditions (shoreline, bottom surface) affect the formation of an effluent plume, and the dilution that occurs as the plume is transported by ambient currents away from the discharge point.²³⁸

Contrary to the claims of Trungale and Wiland, rather than throw out the model any time the exact conditions cannot be replicated, hydrodynamic modeling requires a schematization of the physical environment. In this case, it is appropriate to assume a rectangular cross-section.²³⁹

²³⁴ PAC-2, 9:11 – 9:29.

²³⁵ APP-LT-1, 38:23 – 38:27.

²³⁶ Trungale had never used the CORMIX model in any circumstances before the current assignment. TR 11/04/2020, 112:15 – 112:22. Wiland had reviewed other people's CORMIX modeling twice and "thought I might have run [CORMIX]" on one occasion over 10 years ago." TR 11/04/2020, 207:8 – 209:21.

²³⁷ TR 11/04/2020, 209:24 – 211:1.

²³⁸ APP-LT-1, 38:8 – 38:21.

²³⁹ APP-LT-1, 38:23 – 39:2.

Running CORMIX with the rectangular channel representation, it is then necessary to look at the hydrodynamics and decide whether the effects represented by the modeling are conservative or whether another approach is warranted.²⁴⁰ The concern about the hole expressed by Trungale and Wiland, that the negatively buoyant plume would collect in a pool within the hole,²⁴¹ defies the hydrodynamics that created the hole in the first place.

The TCEQ was informed of the existence of the eddy and the resulting hole by Sarah Garza, the Port Authority's environmental director, in response to an email request from Katie Cunningham about how the diffuser could be located in 63 feet of water when that is deeper than the dredged depth of the ship channel.²⁴² As Ms. Garza explained, the deeper area of the channel was the result of a natural eddy which results from the confluence of the Ship Channel, Aransas Channel, and Lydia Ann Channel.²⁴³ This is consistent with Dr. Tischler's testimony that the hole, commonly known as a scour hole, was created by the velocity of the current at the bottom that is created because of the bend in the channel and the nearby intersection with the Lydia Ann and Aransas Pass Channels.²⁴⁴ As Dr. Tischler explained, the bottom velocity, which is high enough to prevent the sedimentation of high-density particles (silt and sand) in the area, would rapidly mix and disperse the plume made up of dissolved materials.²⁴⁵ Because the effluent plume of elevated salinity water consists of dissolved materials, the high velocities in the deeper area of the channel will mix the salinity in the plume with the overlying ambient water much more thoroughly than

²⁴⁰ TR 11/05/2020, 234:5 – 235:23.

²⁴¹ PAC-2, 14:21 – 14:25; PAC-3, 15:17 – 15:20.

²⁴² ED-KC-7 at 1.

²⁴³ *Id.*

²⁴⁴ APP-LT-1, 39:19 – 33:24.

²⁴⁵ APP-LT-1, 33:13 – 33:27; 39:19 – 39:29.

the CORMIX model predicts.²⁴⁶ The impact of the eddy and resulting scour hole are the same on the SUNTANS modeling performed by Dr. Furnans, as he confirmed in response to questions by Protestants.²⁴⁷

5. The SUNTANS Modeling, Salt Mass Balance and 24-Hour Tidal Exchange Flow Rate Calculations Support the Conclusion that the Permit will be Protective.

The Port Authority presented additional modeling evidence supporting the conclusion that the Draft Permit will be protective of the uses of the receiving waters. As discussed above, Dr. Jordan Furnans conducted far-field modeling using the SUNTANS program and a Salt Mass Balance, and Dr. Tischler prepared a 24-Hour Tidal Exchange Flow Rate calculation which all support the Draft Permit.

a. Dr. Furnans' SUNTANS Modeling.

The results of the SUNTANS modeling demonstrated that vertical mixing of the water column is sufficient to prevent the formation of a persistent high-salinity water layer along the channel bottom.²⁴⁸ The modeling also demonstrates that the proposed discharge will increase ambient salinities by, at most, one part per thousand, and that increases are mitigated by strong tidal forcing and will not lead to a continued increase in the salinity levels, and even this minimal impact is likely overstated.²⁴⁹

In short, the SUNTANS modeling demonstrates that there will not be a long-term adverse impact from the desalination facility discharge which would adversely impact the Marine

²⁴⁶ APP-LT-1, 33:13 – 33:27.

²⁴⁷ TR 11/04/2020, 196:5 – 197:1.

²⁴⁸ APP-JF-1, 8:1 – 8:15.

²⁴⁹ APP-JF-1, 8:1 – 8:15; 19:21 – 20:2.

Environment.²⁵⁰ None of Protestants' witnesses have ever utilized the SUNTANS model, and none attempted to model the far-field effects of the desalination plant discharge with SUNTANS or any other far-field model.²⁵¹ None of Protestants' witnesses have presented evidence using SUNTANS or any other far-field modeling program to dispute the conclusions from Dr. Furnans' work.²⁵²

It is telling to note that Mr. Trungale, who performed all of the modeling for Protestants in this matter, did not offer a single opinion regarding the SUNTANS modeling, or any of Dr. Furnans' other work.²⁵³ Of PAC's other witnesses, Bruce Wiland, its only witness with experience with other far-field models, does not provide any specific critique of the SUNTANS modeling in his direct testimony, stating only that: "Although a far-field modeling report was produced by the applicant, it was not part of the application. I also believe there were flaws in the approach that was taken in that modeling."²⁵⁴ On redirect examination on the subject, Mr. Wiland testified that: "I don't know a whole lot about the model, but based on what I read on it, it could be used, if it had a fine enough grid and – and was applied appropriately to the situation."²⁵⁵

Instead, Protestants' critique of the SUNTANS model came from witness Brad Erisman, a biologist specializing in fisheries, who is not an engineer, not a hydrologist, and has never been involved in setting up a hydrodynamic model for current flows in the Corpus Christi Ship

²⁵⁰ APP-JF-1, 7:27 – 8:15.

²⁵¹ TR 11/04/2020, 66:13 – 67:2, 217:18 – 218:24; TR 11/05/2020 133:19 – 134:3.

²⁵² Wiland argued that the modeling in the Application was insufficient because far-field modeling should have been performed (even though TCEQ protocol does not require far-field modeling) then Wiland dismisses the fact that the Port Authority had far-field modeling performed because it was not part of the Application. TR 11/4/2020, 200:18 – 201:16, PAC-3, 19:1 – 19:8.

²⁵³ See PAC-2; TR 11/04/2020, 108:1 – 190:9.

²⁵⁴ PAC-3, 19:3 -19:5.

²⁵⁵ TR 11/04/2020, 243:23 – 244:1.

Channel.²⁵⁶ As discussed above in more detail, Dr. Erisman is clearly not qualified to testify on the merits of SUNTANS. An expert witness must possess “*special knowledge as to the very matter on which he proposes to give an opinion.*”²⁵⁷ Dr. Erisman is not an expert in hydrodynamic modeling and demonstrated as much when he criticized the SUNTANS model for not having enough data to “understand the ecological condition of the area.”²⁵⁸

b. The Salt Mass Balance and Tidal Exchange Flow Rate Calculations.

Dr. Furnans’ salt mass balance calculations demonstrated that the mass of salt from the Facility added less than 1% additional salt flux to the volume of salt in the water in the channel at the place of discharge. Furthermore, in more moderate conditions which occur much more frequently, the salt mass balance shows that the additional salt from the discharge amounts to 0.05% or less.²⁵⁹ The salt mass balance, which was unchallenged by any of PAC’s witnesses, supports the conclusions of the SUNTANS modeling that there will not be a long-term salt buildup in the channel which could be harmful to the Marine Environment.²⁶⁰

As discussed above, Dr. Tischler determined that at full production rate, the volume of the plant discharge at 96 MGD is only 0.5 percent of the daily flow through the channel at the point of the discharge. This amount of daily dilution flow assures that outside of the mixing zone of Outfall 001, the concentrations of salinity and other constituents in the proposed discharge will be

²⁵⁶ TR 11/04/2020, 104:8 – 104:17.

²⁵⁷ *Sunbridge Healthcare*, 160 S.W.3d at 237; *see also Gammill*, 972 S.W.2d at 718 (The offering party must demonstrate that the witness “possesses special knowledge as to the very matter on which he proposes to give an opinion.”).

²⁵⁸ TR 11/04/2020, 87:23 – 87:24.

²⁵⁹ APP-JF-1, 23:5 – 23:25.

²⁶⁰ *Id.*

negligible and will have no impact on the aquatic life use or any other uses of Corpus Christi Bay and the channels that connect it with the Gulf of Mexico.²⁶¹

H. The Executive Director’s Antidegradation Review Was Accurate. (Issue 4h)

The Texas Administrative Code contains rules regarding antidegradation, which prevent the degradation of water quality.²⁶² Dr. Mary Anne Wallace, a TCEQ aquatic scientist, performed the required antidegradation review and determined that the Draft Permit met the required conditions.²⁶³ Dr. Wallace determined that “existing water quality uses will not be impaired by the [Port Authority] permit” and that “no significant degradation of water quality is expected in Corpus Christi Bay.”²⁶⁴

Dr. Wallace testified that her antidegradation analysis used the same process that other TCEQ aquatic scientists used and that she performed her analysis in compliance with the federal Clean Water Act, the Texas Water Code, TCEQ rules and policies, TCEQ’s 2010 “Procedures to Implement the Texas Surface Water Quality,” and EPA guidelines.²⁶⁵ Dr. Wallace testified that she followed “all of the TCEQ’s guidelines” for her antidegradation analysis.²⁶⁶ “TCEQ’s antidegradation review complies with all applicable state and federal statutes and regulations.”²⁶⁷ Dr. Wallace’s antidegradation analysis was reviewed by TCEQ staff members Brad Caston and Peter Schaefer, who agreed with her analysis.²⁶⁸

²⁶¹ APP-LT-1, 29:12 – 30:2.

²⁶² 30 TEX. ADMIN. CODE § 307.5; ED-MW-3 at 55-70.

²⁶³ ED-MW-10; ED-MW-1, 9:10 – 9:31.

²⁶⁴ ED-MW-1, 4:22 – 4:26.

²⁶⁵ ED-MW-1, 10:4 – 10:9; ED-MW-3.

²⁶⁶ ED-MW-1, 13:6 – 13:7.

²⁶⁷ ED-MW-1, 25:25 – 25:28.

²⁶⁸ ED-MW-1, 11:23 – 11:26.

Dr. Wallace determined that Tier I and Tier II reviews were required and performed those reviews.²⁶⁹ Tier I antidegradation review determines whether the water quality resulting from the discharge will protect existing uses.²⁷⁰ Tier II antidegradation review determines whether a discharge will lower water quality by more than a de minimis amount.²⁷¹ Dr. Wallace determined that Tier III review was not required because Corpus Christi Bay is not designated as part of the Outstanding National Resource Waters.²⁷²

In her prefiled testimony, Dr. Wallace explained in detail the steps she took in performing the Tier I and Tier II reviews.²⁷³ In her Tier I review, Dr. Wallace determined that the “recreation, exceptional aquatic life use, and oyster waters in Corpus Christi Bay will be maintained because of the draft permit’s diffuser requirement,” which would “achieve the salinity increase of less than 1.0 parts per thousand at the edge of the mixing zone as compared to ambient salinity.”²⁷⁴ Dr. Wallace determined that Corpus Christi beaches would not be impaired because “the beaches’ locations were over ten miles across the Bay from the proposed discharge, such that no further contributions as a result of this discharge would be incurred relative to the impairment.”²⁷⁵

In her Tier II review, Dr. Wallace “examined whether the high strength brine would be detrimental to aquatic organisms and humans in and beyond the mixing zone.”²⁷⁶ She also

²⁶⁹ ED-MW-1, 13:12 -16; 18:13-15; ED-MW-6; ED-MW-10.

²⁷⁰ 30 TEX. ADMIN. CODE § 307.5(b)(1).

²⁷¹ 30 TEX. ADMIN. CODE § 307.5(b)(2).

²⁷² ED-MW-1, 19:30 – 20:2; 30 TEX. ADMIN. CODE § 307.5(b)(3) (Under Tier III review, the “quality of outstanding national resource waters must be maintained and protected.”).

²⁷³ ED-MW-1, 16:5 – 19:29.

²⁷⁴ ED-MW-1, 18:1 – 18:6.

²⁷⁵ ED-MW-1, 17:33 – 18:12.

²⁷⁶ ED-MW-1, 18:16 – 18:19.

“considered oyster waters and seagrass habitat.”²⁷⁷ In her Tier II review, Dr. Wallace determined that “existing uses will not be impaired by this permit action based on the facility’s diffuser and the stated design to achieve the proposed increase in salinity of less than 1.0 parts per thousand at the edge of the mixing zone.”²⁷⁸ Therefore, Dr. Wallace conducted the required Tier I and Tier II antidegradation reviews and determined that the Draft Permit met those requirements.

Dr. Tischler also extensively addressed the antidegradation review, including the applicable regulations and policy behind the review. He testified that the TCEQ Interoffice Memorandum from Dr. Wallace, dated August 20, 2018,²⁷⁹ describes the antidegradation review Dr. Wallace performed as well as the U.S. Fish and Wildlife Service’s biological opinion for this permit application.²⁸⁰ He explained that the “Texas SWQS establish an antidegradation policy (30 TAC § 307.5) that has the objective of preventing a new discharge of pollutants or an increased discharge of pollutants from existing point sources and man-induced nonpoint sources from significantly degrading existing water quality.”²⁸¹ With regard specifically to the antidegradation analysis done for this permit by Dr. Wallace, Dr. Tischler testified that it properly addressed the impact of the Port Authority desalination’s discharge on the quality of the receiving waters.²⁸² “The proposed discharge was evaluated for compliance with both the Tier I and Tier II antidegradation policies.”²⁸³ He noted that “Dr. Wallace’s analysis states that the Tier II analysis

²⁷⁷ ED-MW-1, 19:3 – 19:4.

²⁷⁸ ED-MW-1, 19:24 – 19:29.

²⁷⁹ APP-LT-5.

²⁸⁰ APP-LT-1, 15:15 – 15:21.

²⁸¹ APP-LT-1, 18:20 – 18:23.

²⁸² APP-LT-1, 32:4 – 32:7.

²⁸³ *Id.*

may be revisited if new information is received.”²⁸⁴ When the sampling and analysis required by Provision 7 of the Other Requirements section of the TPDES permit is completed, Tier II can be revisited. “An RPA that assures compliance with Tier 1 policy will be completed when the effluent data required by Provision 7 of the proposed Draft Permit is provided within 60 days of the initial discharge from IO 1010.”²⁸⁵ Tier III, he testified, does not apply because there are no outstanding natural resource waters that will be affected by the desalination facility.²⁸⁶ In addition, he stated that Dr. Wallace evaluates the effect of the proposed permit on threatened and endangered species, and describes it in her interoffice memorandum.²⁸⁷ Lastly, Dr. Tischler reiterated that Dr. Wallace’s application of the water quality standards applicable to Corpus Christi Bay, Segment 2481 was appropriate.²⁸⁸

PAC’s witness, Bruce Wiland, an engineer, testified that Dr. Wallace did not actually perform the required Tier I and Tier II antidegradation reviews.²⁸⁹ Wiland’s testimony is conclusory, stating “there was not an adequate review.”²⁹⁰ But Dr. Wallace testified in detail, and provided supporting exhibits, about her antidegradation reviews.²⁹¹ Dr. Wallace testified that “TCEQ’s antidegradation review complies with all applicable state and federal statutes and regulations” and that she followed “all of the TCEQ’s guidelines” for her antidegradation analysis.²⁹² Wiland claimed that Dr. Wallace did not consider the baseline year of 1975 in

²⁸⁴ APP-LT-1, 32:7 – 32:8.

²⁸⁵ APP-LT-1, 32:10 – 32:12.

²⁸⁶ APP-LT-1, 32:8 – 32:14.

²⁸⁷ APP-LT-5.

²⁸⁸ APP-LT-5, Tab F ED – 0072 – 0073; APP-LT-1, 42:8 – 42:19.

²⁸⁹ PAC-3, 20:18 – 21:9 – 20:26.

²⁹⁰ PAC-3, 20:1 – 20:3.:25.

²⁹¹ ED-MW-1, 9:10 – 19:31; ED-MW-3; ED-MW-4; ED-MW-6; ED-MW-8; ED-MW-10.

²⁹² ED-MW-1, 13:6 – 13:19; 25:20 – 25:28.

performing her Tier II analysis.²⁹³ That is incorrect. In her testimony, Dr. Wallace confirmed that the 1975 conditions in Corpus Christi Bay were incorporated into the Implementation Procedures that she used.²⁹⁴ Therefore, the evidence shows that the TCEQ properly conducted the required Tier I and Tier II antidegradation reviews and that their reviews are correct.

I. The Draft Permit Includes All Appropriate and Necessary Requirements. (Issue 4i)

The Draft Permit complies with the TCEQ's rules and regulations for TPDES permits. Per 30 Texas Administrative Code Section 80.17(c)(1), "the filing of the administrative record . . . establishes a prima facie demonstration that the executive director's draft permit meets all state and federal legal and technical requirements, and, if issued is consistent with the executive director's draft permit, would protect human health and safety, the environment, and physical property."²⁹⁵ At the hearing, the TCEQ and Port Authority proffered additional competent evidence in further support of issuance of the requested TPDES permit made the subject of these proceedings.

The Draft Permit is contained in the AR and is described above in detail.²⁹⁶ In addition to the prima facie case contained within the AR, the TCEQ's witnesses have offered their testimony that the Draft Permit complies with the TCEQ's rules and regulations. Moreover, the Port Authority has submitted additional, competent evidence in support of issuance of the Draft Permit, inclusive of the testimony of Dr. Tischler and Palachek. Both Dr. Tischler and Palachek have confirmed that the Draft Permit is complete and meets the Requirements. Dr. Tischler testified that the Draft Permit complies with the permitting process and contains conditions that adequately

²⁹³ ED-MW-1, 21:24 – 21:31.

²⁹⁴ ED-MW-1, 27:30 – 28:3.

²⁹⁵ 30 Tex. Admin. Code § 80.17(c)(1).

²⁹⁶ AR-8, TAB F ED 0001-34.

protect water quality in the CCSC and its aquatic life, including sensitive receptors.²⁹⁷ Dr. Tischler also testified that the Draft Permit is consistent with applicable rules, regulations and water quality standards, contains terms that are reasonable and enforceable, and are consistent with other TPDES permits issued by TCEQ to industrial facilities.²⁹⁸ Palachek testified that the Draft Permit contains all necessary and appropriate requirements and complies with the TCEQ’s IP and Texas SWQS.²⁹⁹ Palachek described the monitoring, WET testing, and other requirements in the Draft Permit that both comply with the Texas SWQS and are protective of the Marine Environment.³⁰⁰

Per 30 Texas Administrative Code Section 80.17(c)(2), the established prima facie demonstration supporting the Draft Permit may be rebutted only with “evidence . . . demonstrating that the draft permit violates a specifically applicable state or federal legal or technical requirement.”³⁰¹ None of the Protestants submitted any evidence of a “violation of a specific state or federal legal or technical requirement,” and thus Protestants have failed to rebut the Port Authority’s and TCEQ’s evidence in support of the Draft Permit.

Dr. Erisman offered his opinion that the location of the discharge in the Draft Permit is not appropriate,³⁰² and that the aquatic life in the area where the effluent will be discharged is sensitive to salinity and other disturbances and that fish species will be impacted.³⁰³ Dr. Erisman asserted that the Draft Permit effluent limits are not calculated in a manner that properly account for

²⁹⁷ APP-LT-1, 24:7 – 24:23.

²⁹⁸ APP-LT-1, 48:28 – 48:30; 49:12 – 49:19.

²⁹⁹ APP-RP-1, 13:3 – 13:15.

³⁰⁰ APP-RP-1, 15:13 – 17:5.

³⁰¹ 30 Tex. Admin. Code § 80.17(c)(2).

³⁰² PAC-1, 10:13.

³⁰³ PAC-1, 10:22-11:1.

necessary background salinity, and therefore are not protective of aquatic life.³⁰⁴ However, Dr. Erisman cannot quantify these alleged impacts,³⁰⁵ and he believes more analysis should be done.³⁰⁶ Dr. Erisman does not know whether there is even a 25% chance that effluent from the facility will cause harm to fish in the CCSC or any other chance for that matter.³⁰⁷ Even if Dr. Erisman's testimony is taken as true (which it is not), such testimony is not "evidence demonstrating that the permit violates a specific state or federal requirement." Worse yet, Dr. Erisman had not read the Application in its entirety and was not familiar with all aspects of the Draft Permit or the details about the WET testing.³⁰⁸ He does not know if he will still have an opinion that the outflow poses a plausible harm to the fish population if the Texas water quality standards are met by the Facility.³⁰⁹ He also could not testify that the outfall violated 30 TAC 307.4(1), (2) or (3).³¹⁰

Dr. Esbaugh offered the conclusory opinion that the Draft Permit does not have all the appropriate and necessary requirements, but he failed to identify what Requirement the Draft Permit fails to meet. Prior to this matter, Dr. Erisman had never reviewed another TPDES permit.³¹¹ Dr. Esbaugh does not have an opinion about the overall increase in salinity from the facility at any point in the CCSC because that is 'CORMIX modeling stuff,'³¹² and he cannot determine the increase in the salinity for the CCSC as a whole as a result of the desalination

³⁰⁴ PAC-1, 13:9 – 13:17.

³⁰⁵ PAC-1, 13:18 – 13:26.

³⁰⁶ PAC-1, 17:5 – 17:14.

³⁰⁷ TR 11/04/2020, 68:4 – 68:14.

³⁰⁸ TR 11/04/2020, 67:11 – 67:20.

³⁰⁹ TR 11/04/2020, 69:4 – 69:9.

³¹⁰ TR 11/04/2020, 69:19 – 69:22.

³¹¹ TR 11/05/2020, 44:19 – 44:21.

³¹² TR 11/05/2020, 45:18 – 45:23.

facility.³¹³ Finally, Dr. Stunz is unable to testify as to what increase in salinity may be caused by placement of the discharge in the CCSC, and unable to testify as to the concentration or duration of any specific species' exposure to such increased salinity (if any) – yet offers his unsupported opinion of dramatic impact. Simply put: Protestants have failed to provide competent or credible evidence that the Draft Permit fails to meet the necessary Requirements.

Historical data proves that the ambient salinity in the area of CCSC seawater normally ranges from 18-39 ppt, and with natural, more extreme variations from about 5 ppt to 40+ ppt. In spite of these naturally occurring and sometimes rapid variations in CCSC ambient salinity, all of the expert witnesses in the case agree that many species of marine life flourish in the CCSC near and around Harbor Island. A desalination facility operating within the parameters of the Draft Permit may increase salinity 1% or less – a de minimis increase in the ambient salinity that most certainly will not have an adverse effect on the Marine Environment.

V. MOTION TO ALLOCATE COSTS OF RECORD

Pursuant to Order No. 5, Memorializing Preliminary Hearing and Establishing Procedural Schedule, the Port Authority was ordered to “arrange for and pay a court reporter to record and transcribe the hearing on the merits,” subject to reimbursement from the parties, when the TCEQ issues its final decision on the Draft Permit.³¹⁴ At that time, the “costs of the recording and transcription may be allocated among the parties.”³¹⁵

³¹³ TR 11/05/2020, 45:24 – 46:3.

³¹⁴ Order No. 5 at 5-6; 30 TEX. ADMIN. CODE § 80.23(b)(5).

³¹⁵ Order No. 5 at 5-6; 30 TEX. ADMIN. CODE § 80.23(b)(5).

The Port Authority incurred reporting and transcription costs in the amount of \$17,861.26 for the November 2, 2020 prehearing conference and hearing on the merits on November 4-6 and 9-10, 2020.³¹⁶ The Port Authority respectfully requests assessment of these costs among the parties in a fair and reasonable manner.

Assessment of reporting and transcription costs may be allocated pursuant to the factors set forth by 30 Texas Administrative Code § 80.23(d). The factors that may be considered in assessing reporting and transcription costs include, but are not limited to:

- The financial ability of the party to pay the costs;³¹⁷
- The extent to which the party participated in the hearing;³¹⁸
- The relative benefits to the various parties of having a transcript;³¹⁹ and
- Any other factor which is relevant to a just and reasonable assessment of costs.³²⁰

Because the Executive Director of the TCEQ and OPIC are statutory parties who cannot appeal the final decision of the TCEQ, the TCEQ and OPIC cannot be assessed reporting and transcription costs.³²¹ The remaining potential parties to assess these costs are PAC, James King, Tammy King, Edward Steves, and Sam Steves.³²²

³¹⁶ The invoices for the reporting and transcription costs are attached as Attachment A. \$9,004.57 of the total cost is for fees for an expedited transcript.

³¹⁷ 30 TEX. ADMIN. CODE § 80.23(d)(1)(B).

³¹⁸ 30 TEX. ADMIN. CODE § 80.23(d)(1)(C).

³¹⁹ 30 TEX. ADMIN. CODE § 80.23(d)(1)(D).

³²⁰ 30 TEX. ADMIN. CODE § 80.23(d)(1)(G).

³²¹ 30 TEX. ADMIN. CODE § 80.23(d)(2) (“The commission will not assess reporting or transcription costs to statutory parties who are precluded by law from appealing any ruling, decision, or other act of the commission.”).

³²² The Port Authority does not assert that costs should be allocated to Audubon Texas and the self-represented individual Protestants, Stacey Bartlett, Sarah Searight, Lisa Turcotte, Jo Ellen Krueger, Mark Grosse, and Cara Denney.

The costs of reporting and transcription should be allocated to PAC, James King, Tammy King, Edward Steves, and Sam Steves for the following reasons:

- PAC, James King, Tammy King, Edward Steves, and Sam Steves have the financial means to contribute their fair share of the reporting and transcription costs and there is no evidence to the contrary;³²³
- PAC, James King, Tammy King, Edward Steves, and Sam Steves fully participated in the hearing by extensively examining witnesses and presenting testimony and exhibits;³²⁴
- PAC, James King, Tammy King, Edward Steves, and Sam Steves stand to benefit from transcription of the proceeding in preparation of their written closing arguments, replies to closing arguments, and creation of an evidentiary record; and³²⁵
- But for their request for a contested case hearing and the testimony they presented through their witnesses, there would have been no need for the transcript.

Therefore, the costs of reporting and transcription should be allocated 100% to PAC, James King, Tammy King, Edward Steves, and Sam Steves, collectively.³²⁶

The ALJs should, therefore, assess the costs of reporting and transcription of the hearing on the merits and order PAC, James King, Tammy King, Edward Steves, and Sam Steves to reimburse the Port Authority's costs.

VI. CONCLUSION AND PRAYER

For the reasons set forth above, the Port Authority requests that the ALJs issue the following findings:

³²³ 30 TEX. ADMIN. CODE § 80.23(d)(1)(B). Evidenced by their numerous motions, depositions, and other filings in this proceeding, these Protestants have sufficient resources to pay their fair share of the costs. Additionally, these Protestants are all represented by private counsel, which is further evidence that they have the financial means to pay the costs.

³²⁴ 30 TEX. ADMIN. CODE § 80.23(d)(1)(C).

³²⁵ 30 TEX. ADMIN. CODE § 80.23(d)(1)(D).

³²⁶ At a minimum, 50% of the costs of reporting and transcription should be allocated to PAC, James King, Tammy King, Edward Steves, and Sam Steves.

1. The proposed discharge will not adversely impact: the marine environment, aquatic life and wildlife, including birds and endangered or threatened species, spawning eggs, or larval migration;
2. The proposed discharge will not adversely impact the health of Protestants and their families, and fish and other seafood will be safe for human consumption;
3. The proposed discharge will not adversely impact recreational activities, commercial fishing, or fisheries in the Corpus Christi Bay and the ship channel;
4. The Application, and representations contained therein, are complete and accurate;
5. The Applicant substantially complied with applicable public notice requirements;
6. The Draft Permit is consistent with the Texas Coastal Management Program goals and policies;
7. The modeling complies with applicable regulations to ensure the Draft Permit is protective of water quality, including utilizing accurate inputs;
8. The Executive Director's antidegradation review was accurate;
9. The Draft Permit includes all appropriate and necessary requirements; and
10. The cost of the reporting and transcription of the hearing on the merits should be assessed 100% to PAC, James King, Tammy King, Edward Steves and Sam Steves, jointly and severally.

Respectfully submitted,

BAKER • WOTRING LLP

/s/ Earnest W. Wotring

Earnest W. Wotring

State Bar No. 22012400

Debra Tsuchiyama Baker

State Bar No. 15089600

John Muir

State Bar No. 14630477

700 JPMorgan Chase Tower

600 Travis Street

Houston, Texas 77002

Telephone: (713) 980-1700

Facsimile: (713) 980-1701

dbaker@bakerwotring.com

ewotring@bakerwotring.com

jmuir@bakerwotring.com

**ATTORNEYS FOR PORT OF CORPUS
CHRISTI AUTHORITY OF NUECES
COUNTY, TEXAS**

CERTIFICATE OF SERVICE

I certify that on November 30, 2020, a true and correct copy of the foregoing was sent *via* e-mail to all parties or, if there is no email address shown, by mail.

/s/ Earnest W. Wotring

Earnest W. Wotring