

APPLICATION OF THE CITY OF § BEFORE THE STATE OFFICE
PATTON VILLAGE FOR TPDES § OF
PERMIT NO. WQ0014926001 § ADMINISTRATIVE HEARINGS

**PROTESTANT ADRIANA CASENAVE’S
EXCEPTIONS TO THE ADMINISTRATIVE LAW JUDGE’S
PROPOSAL FOR DECISION AND ORDER**

COMES NOW, Protestant Adriana Casenave (“Ms. Casenave”) and files her Exceptions to the Administrative Law Judge’s (“ALJ”) Proposal for Decision and Proposed Order (“PFD”). Ms. Casenave requests that the Texas Commission on Environmental Quality (“TCEQ” or “Commission”) disregard the ALJ’s PFD and deny the Applicant’s wastewater discharge permit. Alternatively, Ms. Casenave requests that if a permit is issued that it contain a monthly testing requirement for certain dangerous protozoan known to be associated with wastewater discharges.

I. INTRODUCTION

This case involves the application by the City of Patton Village (“Applicant,” “City” or “Patton Village”) for a permit to discharge treated wastewater into Lake Houston, a primary drinking water source for the City Of Houston. This case presents serious issues of bacterial and toxic contamination being discharged into Peach Creek, a creek used for swimming by local children and into Lake Houston where it is not only used for recreation but also for drinking water. Nothing less than the health and safety of children and water consumers is at stake in this hearing. The primary witness for the City of Patton Village was incompetent to testify on these matters, yet his testimony was the primary basis for fact findings made by the Administrative Law Judge. The basic concept of a contested case hearing is that the rules of evidence apply. Under Texas law “It has long been the rule that incompetent evidence is legally insufficient...”

City of Keller v. Wilson, 168 S.W. 3d 802 at 812 (Texas 2005). The Applicant's only expert on the majority of determinative issues repeatedly and unambiguously admitted his incompetence to testify regarding those issues. Under settled Texas law the Applicant has not met and cannot meet its burden of proof on most referred issues with this testimony.

II. BACKGROUND

Patton Village is located in Montgomery County approximately 35 miles north of Houston and near the intersection of United States Route 59 and Texas State Highway 242. The City is a small community of approximately 400 mobile homes with a scattering of older slab houses.

Patton Village has requested a TPDES permit from the Commission so that it may build and operate a centralized sewer system for the community. Patton Village proposes to build its new wastewater treatment facility just behind City Hall and the Police Station near the shores of two artificial lakes which provide a convenient alternative discharge location that would be acceptable to Protestants. However, instead of finding an acceptable alternative discharge point, the City proposes to pipe the effluent into Peach Creek, a local swimming area and a source of drinking water for the City of Houston.

Peach Creek begins in the Northwestern part of Montgomery County and winds southeast through the rolling hills and pine forests, then flowing into Caney Creek in the upper stretches of Lake Houston inside the bounds of Lake Houston Wilderness Park. The lower section of Peach Creek, southeast of U.S. 59 all the way to Caney Creek near Lake Houston, is listed as impaired for bacteria on the Clean Water Act's 303(d) list. This lower section already contains several wastewater discharges, which the TCEQ's own reports cite as likely sources of impairments.¹

¹ See Dr. Miertschin study which concluded that wastewater treatment plants are sources of excessive *E.coli* in Peach Creek. Protestant's Exhibit P-5.

The upper section of Peach Creek, (everything northwest of U.S. 59) is clean and unimpaired.² Patton Village's proposed discharge would be located just southeast of U.S. 59 in the impaired section but near the impaired-unimpaired boundary.

When notified of the City's plans, many of the property owners on Peach Creek within one-mile of the proposed discharge wrote the Commission objecting to the plan and requesting a hearing. Peach Creek in this area is shallow, with a soft sandy bottom and clear water. The resident wanted to protect it, for themselves, their children, and those downstream.

Within five miles of the proposed discharge Peach Creek runs through 5000 acre Lake Houston Wilderness Park where it mixes with Caney Creek and Lake Houston. Both Lake Houston and the stretch of Peach Creek in Lake Houston Wilderness Park are heavily used for swimming, fishing, boating, and other forms of recreation. Lake Houston also serves as a major source of water for the City of Houston. The City of Houston is the fourth largest City in the country, having more than 2.3 million people.

At the request of the downstream residents the Commission ordered a hearing on the proposed discharge and its effects on downstream water, life, and population referring three issues to SOAH for determination:

1. Will the proposed discharge impact Peach Creek's ability to meet TCEQ water quality standards;
2. Whether the proposed discharge would contribute to excess bacteria in Peach Creek and Lake Houston; and
3. Will the proposed discharge impact the hearing requestors' use of Peach Creek for recreational purposes.

² The upper section north of U.S. 59 does have two discharges from smaller facilities. Protestant's Exhibit P-4 and P-5; Protestant's Exhibit P-2 at 6.

In November of 2009, the ALJ held a preliminary hearing where she awarded two hearing requestors party status, set deadlines, and scheduled a hearing on the merits for late March of 2010. For five months, the parties prepared, hired experts, obtained discovery, and drafted testimony.

The hearing began on March 31, 2010. The Applicant, having the burden of proof on all issues, presented two witnesses, a lay witness and a single expert. The lay witness, the current mayor of Patton Village, testified that the City currently operates failing or poorly operating septic systems and had been awarded \$4.1 million in federal grants and loans to install a centralized sewer system. Patton Village's sole expert witness at the initial hearing, Mr. George Lazaro, P.E., testified concerning the Commission's three referred issues concluding that the proposed discharge fared positively against each one.

On cross examination, Mr. Lazaro admitted that he had not analyzed the discharge, he had no understanding of the Texas Surface Water Quality Standards (TSWQS), and in fact had not read major portions of the TSWQS. Mr. Lazaro, without any analysis or understanding, based his conclusions on all three referred issues only on the TCEQ Staff's memoranda. The Applicant, through its sole technical witness, added nothing to the analysis of the TCEQ. In the five months between the initial hearing and the hearing on the merits, in its preparation for and drafting of prefiled testimony, the Applicant did nothing to technically evaluate or analyze and did not even attempt to understand the Commission's referred issues. Mr. Lazaro showed a complete lack of understanding with respect to the TSWQS and under Texas evidentiary rules, his testimony simply cannot be considered as expert, opinion testimony. He is not qualified from a scientific or technical standpoint to offer opinions on these matters.

The Protestant's lead attorney, Mr. James Blackburn, Jr., stated the following regarding the Applicant's effort in his oral motion for directed verdict, "Frankly, I've been practicing before this agency and before SOAH for a long time. I have never seen a situation quite like this except in UA... ." ³ UA refers to a SOAH hearing over a wastewater discharge in which the applicant's only expert was also incompetent with regard to the TSWQS and in which the ALJ summarily disposed of the case. ⁴ The same should be done here.

After the closing of the record, the Administrative Law Judge reopened the hearing over the objection of the Protestants to allow additional evidence to be presented by the Applicant. This additional evidence was limited to issues associated with dissolved oxygen and did not address any issues concerning bacteria or toxic materials which were a key part of the Protestant's case.

III. TEXAS EVIDENTIARY REQUIREMENTS FOR BURDEN OF PROOF

The Applicant has the burden of proof on all referred issues and that burden is by a preponderance of the evidence. 30 TEX. ADMIN. CODE §§ 80.17(a) and (e); *Id.* at 80.108(e); *Id.* at 80.117(b). Under Texas Law the party with the burden of proof must pass the threshold of presenting legally sufficient evidence on each vital fact at issue. *Marathon Corp. v. Pitzner*, 106 S.W.3d 724, 727-728 (Tex. 2003) (per curiam). Legally sufficient evidence is evidence that is greater than mere suspicion, surmise, or speculation and that is not barred by the rules of law or evidence. *Id.* When a party has presented legally insufficient evidence courts treat the party's evidence and refer to it as "no evidence." *See City of Keller*, 168 S.W.3d 802 at 812-813.

³ TR at 88:16-18

⁴ APPLICATION OF UA HOLDINGS 1994-5, FOR NEW TPDES PERMIT NO. WQ 14468-001, SOAH DOCKET NO. 582-06-039, TCEQ DOCKET NO. 2005-1184-MWD

In the case of an expert witness, opinion testimony that is without foundation or basis is termed incompetent and is considered legally insufficient. *Id.* at 812; *Costal Transp. Co. v. Crown Cent. Petroleum Corp.*, 136 S.W. 3d 227, 232 (Tex. 2004). In the words of the Supreme Court of Texas, “Opinion testimony that is conclusory or speculative is not relevant evidence... this Court has labeled such testimony as ‘incompetent evidence’ and has often held that such conclusory testimony cannot support a judgment. *Id.* (citing Tex. R. Evid. 401).

Expert testimony that fails to meet the *Daubert* gate-keeping standards of reliability adopted in *E.I. du Pont de Nemours & Co. v. Robinson*, S.W. 2d 549 (Tex. 1995) is not only inadmissible but incompetent as well. *City of Keller*, 168 S.W. 3d 802 at 813 (citing *Merrell Dow Pharms., Inc. v. Havner*, 953 S.W. 2d 706, 714, 720 (Tex. 1997); accord *Costal Trasp. Co.*, 136 S.W. 3d 227, 232; see also Tex. R. Evid. 702 (codifying the *Robinson* gate-keeping standard). Finally, the Texas Supreme Court has repeatedly held “incompetent evidence is legally insufficient to support a judgment, *even if admitted without objection.*” *City of Keller*, 168 S.W. 3d 802 at 812 (emphasis added).⁵

The Texas Supreme court has held that when an expert’s testimony is based on scientific, technical, or other specialized knowledge:

Daubert and Rule 702 demand that the district court evaluate the methods, analysis, and principles relied upon in reaching the opinion. The court should ensure that the opinion comports with applicable professional

⁵ Protestant properly objected at hearing after the expert’s unreliability became apparent on cross examination by making a motion for directed verdict, properly termed a motion for summary disposition, in which OPIC joined. TR at 78:22 – 83:2. The Texas Supreme Court requires a timely objection only when an expert’s underlying methodology is at issue, which is not the case here. *Costal Trasp. Co.*, 136 S.W. 3d 227, 233. Regardless, an objection after cross examination is timely when unreliability becomes apparent during cross. *General Motors Corp. v. Iracheta*, 161 S.W.3d 462, 471 (Tex. 2005). The objecting party need not anticipate the deficiency before it becomes apparent. *Id.*

standards outside the courtroom and that it ‘*will have a reliable basis in the knowledge and experience of [the] discipline.*’

Gammill v. Jack Williams Chevrolet, Inc., 972 S.W. 2d 713, 725-726 (Tex. 1998) (quoting and adopting the standard of *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997)) (emphasis added, quotes in original). Evidence showing an expert to be incompetent cannot be disregarded by a court. *City of Keller*, 168 S.W. 3d 802 at 812, 813.

The above cited precedent explains and interprets Texas Rule Evidence 702. The Texas Rules of Evidence are applicable to SOAH proceeding under the Texas APA and SOAH and TCEQ procedural regulations and are therefore relevant law in this proceeding. Tex. Gov’t Code § 2001.081; 1 Tex. Admin. Code § 153.429; 30 Tex. Admin. Code § 80.127.

IV. EXCEPTIONS

A. The ALJ wrongly concluded that the Applicant’s primary expert constituted legally sufficient evidence and that the Applicant carried its burden of proof at the hearing with regard to the First Referred Issue “Whether the Proposed Discharge would Impact Peach Creek’s Ability to Meet TSWQS.”

As the ALJ states in her PFD regarding the Applicant’s Experts lack of knowledge and experience:

Mr. Lazaro admittedly has no expertise in biology and has little knowledge about TCEQ’s method of analyzing a permit application. He did not know the meaning of either chronic or acute toxicity. And he had never read the section of the Texas Surface Water Quality Standards (TSWQS) regarding toxic materials. He testified that he has no basis other than Staff’s analysis for his testimony that the proposed discharge meets the water quality standards.

PFD at 6-7. Mr. Lazaro is the sole technical witness put forward by the Applicant on all aspects of the TSWQS except for the section of the TSWQS concerning dissolved oxygen (which was brought in by a supplemental expert in a reopened hearing after final arguments had been written and submitted to the ALJ).

Under Texas' evidentiary standards, Mr. Lazaro is incompetent to testify as a technical expert and his opinions are considered legally insufficient evidence if he lacks knowledge or experience in the subject on which he testifies. In this case the first referred issue requires that Mr. Lazaro have knowledge of and experience regarding the TSWQS. Otherwise his testimony regarding the TSWQS is both inadmissible and legally insufficient to carry the Applicant's burden of proof.

1. Mr. Lazaro's Testimony on the TSWQS Standards for *E. coli* Bacteria and Contact Recreation. (Findings of Fact 27, 28, 38, 39, 40, 43, 44, 45; Conclusions of Law 4 and 6)

The Commission's first referred issue concerns whether the proposed discharge will affect the receiving water's ability to meet TSWQS, an important component of which includes standards for contact recreation and *E. coli*. 30 Tex. Admin. Code § 307.7(b)(1). The TCEQ measures *E. Coli* to determine whether a stream segment is safe to swim in. Currently the Portion of Peach Creek where the proposed discharge will be located is designated as impaired under the Clean Water Acts 303(d) list for have *E. Coli* levels higher than those which the TCEQ considers safe for swimming.

The issue of whether the proposed discharge will affect *E. Coli* levels in Peach Creek and the ability of Peach Creek to be used for swimming and other forms of contact recreation is of special importance because the area is heavily used in this capacity. The Applicant's only expert on this topic was Mr. Lazaro, who was totally incompetent to testify. To quote the ALJ's PFD "Ms. Casenave argues that Patton Village's expert, Mr. Lazaro, lacked knowledge about bacteria, and *Mr. Lazaro testified as much.*" PFD at 14 (emphasis added). With regard to whether Peach Creek's existing use of contact recreation would be further degraded Mr. Lazaro testified as follows:

- Q: (by Mr. Blackburn) Now did you offer an opinion as to whether Peach Creek would be suitable for contact recreation after the - - if this permit were allowed to be issued?
- A: The only thing that I can base that in - - on is the Qualtex model that was conducted by the TCEQ, and that indicates that it would not have a significant impact.
- Q: That's the Qualtex model that you haven't been able to tell me any details about. Is that the same model?
- A: That is the model that model that was conducted by the TCEQ, yes.

TR at 34: 12-23.

Unfortunately, the TCEQ's QUAL-TX looks exclusively at the impact of dissolved oxygen on the receiving stream and is completely unrelated to contact recreation or pathogenic organisms. Mark Rudolph, the TCEQ staff member responsible for the QUAL-TX modeling of the proposed discharge, explains this fully in his supplemental direct testimony:

- Q: (By Ms. Lee) And, Mr. Rudolph, I just have a few questions for you, if you don't mind turning to your prefiled testimony, Page 5. I believe there have been a lot of questions asked regarding bacteria and DO modeling. And on Line 29, the question was asked, "Did the bacteria impairment affect your analysis or any of your recommendations?" Can you please tell me what your answer was?
- A: The answer was, "No."
- Q: And can you please explain to me why you answered no?
- A: The bacteria impairment referred to here is based on those bacteria standards designed to protect for contact recreation, and **my analysis was exclusively for dissolved oxygen impact**. While it's true that bacteria play a role in the assimilation of oxygen main constituents, that's a separate class of bacteria than those referenced here. These here are the contact recreation specific bacteria.

TR at 198: 20-199:15 (emphasis added). This is also confirmed in Mr. Rudolph's prefiled testimony. Exhibit ED-7 at 2: 32-3: 2.

As the ALJ confirmed in her PFD, Mr. Lazaro's testimony shows that he has no understanding or knowledge of the TSWQS regarding contact recreation and pathogenic bacteria. PFD at 14. An expert is simply not allowed to give testimony on a subject he does not understand. *Broders v. Heise*, 924 S.W.2d 148, 152-53 (Tex. 1996); *Gammill*, 972 S.W.2d 713,

725-26; *Roberts v. Williamson*, 111 S.W.3d 113, 121 (Tex. 2003). An expert's testimony is similarly incompetent if it is based on false assumptions or data. *Havner*, 953 S.W.2d 706, 714 (Tex. 1997). Judges cannot ignore evidence of incompetency of experts regardless of whether such evidence was objected to at hearing. *City of Keller*, 168 S.W. 3d 802 at 812, 813.

The ALJ's PFD mentions that Mr. Lazaro has experience with wastewater treatment systems and how they process bacteria. PFD at 14. This is true and Mr. Lazaro may be well qualified to give testimony regarding activated sludge processes and chlorine contact chamber designs or functions. However, his opinions regarding TSWQS and the TCEQ's evaluation of a proposed discharge are incompetent because he simply has no knowledge of either. *Broders*, 924 S.W.2d 148, 152-53. Under Texas law for an expert to be competent he must have knowledge about the specific issue in question. *Id.* In this case the specific issues in question concern compliance with the TSWQS. At the time of his testimony, Mr. Lazaro had no understanding of the specific provisions that make up the TSWQS or the way in which the TCEQ analyzed the proposed discharge.

The Applicant has the burden of proof on all referred issues and to carry its burden it must, at minimum, offer legally sufficient evidence on each determinative aspect of each referred issue. With regard to these two related aspects of the TSWQS that simply has not happened.

2. Mr. Lazaro's Testimony on the TSWQS Standards for Toxic Pollutants. (Findings of Fact 29, 30, 31, 32, 33, 38; Conclusions of Law 4 and 6)

The TSWQS contain criteria to prevent receiving waters from being toxic. Title 30 TEX. ADMIN. CODE §§ 307.4(d) and 307.6(b) both strictly prohibit the water of Texas from being toxic

to man or fish.^{6, 7} The prohibitions are broad and include, but are not limited to, toxins for which there are established numeric criteria. *See generally* 30 Tex. Admin. Code § 307.6. In relation to toxic pollutants, Mr. Lazaro testified that he had no knowledge of and in fact had not even read the sections of the TSWQS related to toxicity. The following testimony illustrates this:

Q: Now, in your analysis of the impacts of this facility, did you take into account the impacts of any toxic substances?

A: No sir.

Q: Are you familiar with the term “acute toxicity”?

A: No, sir.

Q: Are you familiar with the term “chronic toxicity”?

A: No, sir.

Q: Are you familiar with the term “bioaccumulation”?

A: No, sir.

Q: In your assessment that this proposed discharge met the water quality standards of the TCEQ, did you analyze compliance with 307.4(d)?

A: I strictly depended on the Qualtex model prepared and conducted by the TCEQ staff.

Q: So your answer is “no”?

A: Yes, sir.

Q: (BY MR. BLACKBURN) So let’s be clear. You did not undertake a separate analysis of whether there was toxicity - - or toxic substances, according to 30 TAC Section 307.4(d). Correct?

A: That is correct.

⁶ 30 TEX. ADMIN. CODE § 307.4(d):

Toxic Substances. Surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. Additional requirements and criteria for toxic substances are specified in § 307.6 of this title.

⁷ 30 TEX. ADMIN. CODE 307.6(b):

General provisions.

(1) Water in the state shall not be acutely toxic to aquatic life in accordance with § 307.8 of this title.

(2) Water in the state with designated or existing aquatic life uses shall not be chronically toxic to aquatic life, in accordance with § 307.8 of this title.

(3) Water in the state shall be maintained to preclude adverse toxic effect on human health resulting from contact recreation, consumption of aquatic organisms, consumption of drinking water....

Q: Section 307.6, Toxic Materials, do you see that?

A: Yes.

Q: Have you ever read that section of the water quality standards before?

A: I've seen this table before, yes.

Q: Have you read the provisions?

A: No.

Q: How can you testify that this discharge meets the water quality standards of the State if you've never read them?

*** (overruled objection omitted)

A: I'm basing it on the Qualtex model conducted by the TCEQ staff and their recommendations.

TR at 37: 12- 38: 15; 42: 14-43: 7.

The TCEQ's modeler, Mr. Rudolph, testified in his prefiled testimony and on cross examination that QUAL-TX modeling was only used to measure the proposed discharge's impacts on dissolved oxygen levels in the receiving stream. Here again, Mr. Lazaro improperly attempts to base his opinion on the TSWQS for toxic pollutants on dissolved oxygen modeling and shows complete ignorance to the subject he attempts to testify to.

Mr. Lazaro is the Applicant's only expert on this topic. Because Mr. Lazaro is incompetent to testify regarding the TSWQS concerning toxicity, under Texas law the Applicant has presented no evidence on this issue and therefore cannot meet its burden of proof.

**3. Mr. Lazaro's Testimony on the TSWQS Antidegradation Policy.
(Findings of Fact 34, 35, 36, 37, 38, 39; Conclusions of Law 4 and 6)**

The TSWQS Antidegradation section in 30 Tex. Admin. Code § 307.5 requires that water quality sufficient to protect existing uses will be maintained and activities subject to regulatory action will not be allowed if they would cause degradation of waters that exceed fishable or swimmable quality. As mentioned previously, Peach Creek *E. Coli* concentrations already exceed those required for safe swimming which is one of the uses that the Commission has

designated for Peach Creek. Peach Creek's designated uses are listed in 30 Tex. Admin. Code § 307.10 Appendix A and include contact recreation, high aquatic life, and public water supply.

In his testimony concerning the proposed discharges relation to the TSWQS Antidegradation provisions, Mr. Lazaro's testimony again shows that he is unknowledgeable and incompetent to testify. In fact, with regard to Antidegradation, Mr. Lazaro had done no independent analysis or evaluation:

Q: (By Mr. Blackburn) Did you conduct a Tier 1 Antidegradation analysis?

A: No.

Q: Did you conduct a Tier 2 Antidegradation analysis?

A: No.

Q: (By Mr. Blackburn) Do you have any information with you today that would show some analysis on your part of either a Tier 1 or Tier 2 antidegradation review, other than this document [referring to Protestant's Exhibit 8(The TCEQ water quality assessment memorandum)]?

A: I don't have any other information as far as a Tier 1 and Tier 2 analysis. We depend on TCEQ to conduct that analysis.

TR at 26:12-17, 28: 14-20.

Mr. Lazaro testimony concerning Antidegradation was merely a rote recitation of the TCEQ Staff's memorandum. When an expert offers an opinion without analysis, evaluation, or understanding it is conclusory, incompetent, and considered no evidence and given no weight. *Gammill*, 972 S.W.2d 713, 725-726; *City of Keller*, 168 S.W.3d 802, 812-813. Consider the following exchange concerning Mr. Lazaro familiarity with the TSWQS's Antidegradation provisions:

Q: (By Mr. Blackburn) So you've never read – had you read the antidegradation policy previously?

A: Not recently.

TR at 43: 8-10.

Mr. Lazaro's response shows that he lacks the requisite understanding of and familiarity with the TSWQS Antidegradation provisions. Under Texas law Mr. Lazaro cannot give expert testimony on this subject. Such testimony is deemed incompetent and considered no evidence under Texas Law.

B. No Evidence was Presented on the Commission's Second Referred Issue "Whether the Proposed Discharge would Contribute to Excess Bacteria in Lake Houston." (Findings of Fact 18, 27, 28, 38, 39, 40, 42, 43, 44, 45; Conclusions of Law 4 and 6)

Referred issue number two questions "Whether the proposed discharge would contribute to excess bacteria in Peach Creek and Lake Houston." The Applicant's single expert on this issue simply did not attempt to make an assessment.

Q: (By Mr. Blackburn) But what I'm asking [about] is excess bacteria. You know, how did you make a determination of excess bacteria with regard to Lake Houston, specifically, if you know no information on the current levels [of bacteria] ?

A: I am depending on the parameters that were set forth in the discharge permit.

Q: So would it be fair to say you made no such assessment?

A: I did not conduct an independent assessment.

TR at 57: 9-14.

Mr. Lazaro admits that he made no assessment of this issue. The TCEQ Staff similarly made no assessment of this issue. For example, Dr. Michael Redda, the TCEQ staff member responsible for the Technical Summary in the Draft Permit, relied on three TCEQ interoffice memoranda to complete his Technical Summary. These memoranda made no reference to or mention of Lake Houston:

Q: (By Mr. Duson) So on any of the memorandum – any of the documents that you relied on in making that section of the permit, was Lake Houston considered?

A: No, sir.

TR at 147: 21-24. Later when discussing his analysis of the adequacy of the treatment process to meet the designated water quality, Dr. Redda testifies as follows:

Q: (By Mr. Duson) I'd like to move back to Pages 5 and 6 of your testimony. So, just going through the list of things that you review in a municipal wastewater permit application, you consider the appropriateness and adequacy of the treatment process to meet the designated water quality?

A: Yes.

Q: In that case, that wouldn't include Lake Houston. Is that correct?

A: Yes. The water is basically made for Peach Creek, so we were working on Peach Creek.

TR at 154: 6-16.

In the TCEQ's review of the proposed discharge, the staff only considered, only analyzed, and only modeled for potential impacts on Peach Creek. Impacts to bacteria levels in Lake Houston were not considered. The TCEQ's other witnesses confirm Dr. Redda's testimony. Mark Rudolph, the TCEQ's modeler for this permit application, testified that "my analysis was exclusively for dissolved oxygen impact." TR at 195: 9-10.

The ALJ's PFD states that "neither Patton Village nor Staff performed a separate analysis of Lake Houston." PFD at 14. If neither the Applicant nor Staff performed an analysis regarding Lake Houston then there can be no legally sufficiency evidence with which the Applicant can carry its burden on this issue. The ALJ points to Mr. Robert Hansen's, the TCEQ staff member responsible for the water quality standards review and author of the standards memorandum, statement that he "assumed" downstream water would be protected. PFD at 15; TR at 246:12-24. However, Mr. Hansen also admits that his permit review focused exclusively on Peach Creek and that no analysis of Lake Houston was made:

Q: And as part of your work, did you undertake any analysis of Lake Houston for your testimony?

A: No, I did not.

TR at 232: 4-6.

Even if Mr. Hansen's assumption constituted a reliable and competent expert opinion under Texas law, which it does not, it still could not be used by the Applicant to meet its burden of proof on this issue. The Texas Water Code specifically prohibits Staff from assisting the Applicant with its burden of proof. TEX. WATER CODE § 5.228(e). Even so, Mr. Hansen's assumption is speculation unsupported by analysis and is legally insufficient to be considered competent evidence regardless of whether it was objected to or not. *City of Keller*, 168 S.W.3d 802, 812-813. There is no legally sufficient evidence in the record which supports the ALJ's recommendation as to referred issue two "Whether the proposed discharge would contribute excess bacteria to Lake Houston."

C. Referred Issue 3: The Applicant Failed to Submit Evidence or Submitted Insufficient Evidence on Whether the Proposed Discharge Would Impact the Hearing Requestor's Recreational Use of Peach Creek. (Findings of Fact 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 43, 44, 45; Conclusions of Law 4 and 6).

Referred Issue three was similarly not adequately addressed by either Applicant or Staff. Mr. Lazaro, the Applicant's sole witness on this issue, testified that his opinions as to referred issue three relied exclusively on the TCEQ's modeling:

Q: Now did you offer an opinion as to whether Peach Creek would be suitable for contact recreation after the - - if this permit were allowed to be issued?

A: The only thing that I can base that in - - on is the Qualtex model that was conducted by the TCEQ, and that indicates that it would not have a significant impact.

Q: That's the Qualtex model that you haven't been able to tell me any details about. Is that the same model?

A: That is the model that model that was conducted by the TCEQ, yes.

TR at 34: 12-23.

As was previously mentioned, the TCEQ's QUAL-TX model is used exclusively to determine what effect the discharge will have on dissolved oxygen levels in the receiving stream and has no relationship to *E. coli* or the presence of other pathogens or toxins that may harm people in the water. Here again Mr. Lazaro's testimony is based on his mistaken concept of what the TCEQ models for. As is the case with Mr. Lazaro's opinion time and time again, "If the foundational data underlying opinion testimony are unreliable,... any opinion drawn from that data is likewise unreliable." *Havner*, 953 S.W.2d 706, 714 (Tex. 1997). Such is the case here.

The ALJ makes the assertion that the recreational use standard is evaluated solely through application of the bacteria standard. Finding of Fact 27. This is true only in the sense that the TSWQS establish specific numeric criteria of *E. Coli* as one measure of recreation safety. 30 Tex. Admin. Code § 307.7(b)(1). However, the regulations specifically mention that the use of *E. Coli* is only an indicator and does not correlate well with safety. *Id.* At no point do the regulations support the ALJ's speculation that this is an exclusive standard. The definitional section of the TSWQS defines recreation to include fishing and other uses. 30 Tex. Admin. Code § 307.3 (a)(35). There are many segments in Texas where these uses are impaired due to toxic pollutants or their accumulation in fish and other species. *See generally* TCEQ's 303(d) lists of impaired waters. The Commission's power to protect the health and safety of Texans who fish, swim, surf, or boat is not limited to looking exclusively at *E. Coli* levels.

Additionally, Protestant has presented testimony showing that the hearing requestors' use of Peach Creek will be affected by the proposed discharge. Protestant's Exhibit P-1 at 2:21-3:6. In light of the Applicant's evidentiary failure, Protestant's evidence on this matter remains

uncontroverted. The only competent evidence in the record on referred issue three is at odds with the ALJ's recommendation on this issue.

D. Evidence Presented and Developed by Protestant

1. The Presence of Endocrine Disruptors in the Wastewater Discharge. (Findings of Fact 31, 33, 37, 38; and Conclusions of Law 4 and 6).

Peach Creek is a tributary of Lake Houston, which is one of the primary sources of drinking water for the City of Houston. With the exception of Mark Rudolph, the testimonies of all expert witness in this case contained a significant discussion on endocrine disruptors, a class of toxic pollutants, some of which are known to be present in wastewater discharges. Endocrine disruptors that are known to be associated with municipal wastewater discharge include estrogen, synthetic estrogens (birth control and hormone replacement products), phthalates, and nonionic surfactants mainly alkyphenol ethoxylates the most talked about of which is nonylphenol. *See generally* Protestant's Exhibit P-15.

Nonylphenol is, in fact, so well studied that the EPA, in December of 2005, published a national water quality criteria on it for the protection of aquatic life. *See* Protestant's Exhibit P-13. As EPA Document EPA-822-R-05-005 titled *Aquatic Ambient Water Quality Criteria – Nonylphenol* discusses, nonylphenol is known to be both acutely toxic and chronically toxic to aquatic life. *Id.* at 9-12; *Id.* at 13-16. As this EPA document describes, nonylphenol has been shown to be one of the most commonly occurring organic wastewater contaminants and has been measured at higher concentrations than most other organic contaminants of concern. *Id.* at 3. Nonylphenol is known to accumulate in sediments and bioconcentrate in aquatic life. *Id.* 4-6. Exposure of rainbow trout to seemingly insignificant concentrations of nonylphenol (as small as 1µg/L) significantly reduced the mortality rate and reproductive success of their progeny, meaning that seemingly insignificant adult exposure has been show to have significant effects on

subsequent offspring. *Id.* at 29. Nonylphenol has been repeatedly shown to have estrogenic effects on aquatic life. *Id.* at 26-27. The EPA final criteria document, admitted into evidence as Protestant's Exhibit P-13, sets the national criteria for protection of aquatic life at a one hour average concentration not to exceed 28 µg/L more than once every three years on average and a four day average concentration of nonylphenol not to exceed 6.6 µg/L more than once every three years. *Id.* at 34.

Most nonylphenol enters the environment as 4-alkylphenol polyethoxylate surfactants which degrade into nonylphenol, in part, through the sewage treatment process. *Id.* at 3-4. Protestant's expert, Ms. Mary Ellen Whitworth, testified that that the influent to the City of Patton Villages proposed wastewater treatment plant will contain alkylphenol ethoxylates and specifically nonylphenol in its influent as a result of these chemicals being common ingredients in household detergents. TR at 118: 23- 119: 7; Protestant Exhibit P-2 at 11: 21-12: 3-8. The testimony of the ED's expert witness, Dr. Michael Redda, also shows that nonylphenol will be present in the effluent as well. TR at 166: 3-169: 22. For example consider the following testimony by Dr. Redda:

Q: (by Mr. Duson) Are nonionic surfactant present in laundry detergent?

A: Yes, they are.

Q: Are there studies indicating that nonionic surfactants are harming aquatic life downstream of domestic or municipal wastewater treatment plants that discharge effluent containing nonionic surfactants or their degradants?

*** (overruled objection omitted)

A: Yes, I do, sir.

Q: [Referring to the EPA Criteria Document for Nonylphenol, Protestant's Exhibit P-13] Does that document state that laundry detergents contain compounds that degrade to nonylphenol?

A: Yes, it does.

Q: Are laundry detergents used – would you expect laundry detergents to enter the effluent of the proposed plant?

A: Yes, sir, I expect.

Q: And you understand, when I say “nonionic surfactants,” I’m alluding mainly to alkylphenol ethoxylate and its common desiccants [degradants] ? Is that okay with you?

A: Yes. If that is referring to nonylphenol. That is my understanding.

Q: Are you aware of studies relating to the injuries that nonionic surfactants can cause to fish populations, fish downstream of wastewater treatment plants?

A: The study mostly shows – some show bioaccumulation or biomagnifications, plus some estrogenicity. So that probably protects –

Q: Does the estrogenicity concern you?

A: Yes, it does.

TR at 165: 3-15, 166: 8-11, 166: 14-17, 168: 10-15, 169: 15-23

There is ample evidence in the record to show than alkyphenol ethoxylates will more than likely be present in the wastewater influent. We know from the EPA national criteria document that nonylphenol is one of the most commonly occurring wastewater contaminants and that it is a known degradant of alkyphenol ethoxylates. On the strength of the referenced testimony and documentation, Protestant argues that nonylphenol is certain to be present in the wastewater discharge proposed by the Applicant.

Based on the known toxicity of nonylphenol, the strict prohibition against toxicity in the TSWQS, and the certainty that nonylphenol will be present in the discharge, Protestant believes that at a minimum, the TSWQS and related guidance require an analysis of this dangerous substance especially considering that Peach Creek is a tributary for a major source of the City of

Houston's drinking water. *See generally* 30 TEX. ADMIN. CODE §§ 307.5 and 307.6; *Procedures to Implement the Texas Surface Water Quality Standard*, TCEQ Document RG-194, pages 51-85 (Revised) (January 2003). As the TSWQS state, review of toxics are not limited to those with established numeric criteria, "For toxic materials for which specific numerical criteria are not listed in Table 1, the appropriate criteria for aquatic life protection may be derived in accordance with current EPA guidelines for deriving site-specific water quality criteria" or "When insufficient data are available to use EPA guidelines, the following provisions shall be applied..." 30 Tex. Admin. Code § 307.6(c)(7).

Also at issue are estrogens, including and especially synthetic estrogens. We know that small amounts of estrogen can have significant detrimental effects on downstream life, including humans. The TCEQ's expert testified to this:

Q: Are you aware of the effects that small amounts of estrogen can have on developing fish larva and you fish, normally called fry?

A: Yes.

Q: And these detrimental effects included impairment of their reproductive behavior?

A: Yes, the studies show that.

Q: Are you aware of any studies on mammals and the effects of small amounts of estrogen exposure of embryos and the subsequent effects on the adult?

A: With nonylphenol, or –

Q: I'm talking about estrogen?

A: Yes. Yes.

Q: You know about this?

A: Yes.

Q: And what concentrations of estrogen are we talking about here? Are we talking about parts per trillion?

A: Yes, in micrograms per – parts per trillion.

Q: Nanograms per liter, that's parts per trillion. Correct?

A: Yes.

Q: When the people that live – the women that live in the City of Patton Village urinate in the toilet, will there be estrogen in that urine?

A: I will assume there will be some.

TR at 169: 24- 170:20, 171: 5-15.

As Dr. Redda relates in his testimony we know that tiny amounts of estrogens have serious impairments on the reproductive behavior of downstream life and are especially harmful to developing embryos. The TSQWS mandate that toxic material be address whenever there is reason to expect the presence of toxic materials in the discharge. This is true regardless of whether the TCEQ has developed numeric standards for the expected pollutants. *See generally* 30 Tex. Admin. Code § 307.6.

Similarly, we know that phthalates are present in at least some wastewater discharges. Protestant Exhibit P-15 at 23, Table 3. Protestant Exhibit P-15, a U.S. Geological study on the endocrine disruption of wastewater effluent on fish in California, concludes that exposure to endocrine disrupting compounds followed the gradient of proximity to wastewater treatment discharges, and the most significant effects were found at the point source. *Id.* at 1. This same study shows a strongly negative correlation between blood testosterone levels in fish and concentrations of phthalates in the water. *Id.* at 38, Figure 31; *Id.* at 39.

These endocrine disruptors or their potential effects on the downstream human and aquatic populations were not addressed by the Applicant or the ED. Protestant believes, that there is sufficient evidence of the endocrine disrupting effects of these substances and their presence in the proposed effluent to require further review and analysis under the TSWQS sections relating to toxicity and antidegradation, making the daft permit and the related review incomplete under TCEQ regulations and guidance. *See generally* 30 TEX. ADMIN. CODE §§ 307.5 and 307.6; *Procedures to Implement the Texas Surface Water Quality Standard*, TCEQ

Document RG-194, pages 51-85 (Revised) (January 2003). The draft permit should therefore be denied.

E. *E. coli* is has not been Shown to be a Reliable Indicator of Pathogens. (Findings of Fact 27, 28, 36, 37, 38, 40, 43, 44, 45; Conclusions of Law 4 and 6).

Finally, Protestant's expert, Ms. Whitworth, testified that "using *E. coli*, which is a type of fecal coliform, as the sole indicator organism for pathogens has not been proved to accurately predict the presence or absence of pathogens." Protestant's Exhibit P-2 at 9: 24-26. In fact, Ms Whitworth relied on and testified concerning an EPA literature review in which the EPA recommends that regulators need to use more than one indicator species to accurately predict the presence or absence of pathogens. Protestant's Exhibit P-2 at 9: 1-7; Protestant's Exhibit P-6. Ms. Whitworth also testifies concerning the study by Harwood et al. on the ineffectiveness of using fecal coliform and other traditional indicators of pathogens and the need to use more than one indicator organism. Protestant's Exhibit P-2 at 9: 7-19; Protestant's Exhibit P-8. As Ms. Whitworth asserts this causes a lack of safety that will likely impact the downstream use of Peach Creek. Protestant's Exhibit P-2 at 9: 26-27.

Ms. Whitworth also recommended testing for the protzoa *Giardia* and infectious *Cryptosporiduum* as they can make people very sick and are known to be chlorine treatment resistant. Protestant's Exhibit P-2 at 9:29-31. On the strength of this testimony, Protestant recommend that the draft permit, if issued, should be amended to include a monitoring requirement for *Giardia* and infectious *Crytosporiduum*, in order to ensure that the downstream public is protected and informed when dangerous pathogen are discharged from the proposed facility. Protestant believes that this is especially important in this case given the proximity of Lake Houston and the fact that these waters are routinely used for recreation and drinking water.

F. OTHER MATTERS

1. There is No Evidence that septic systems are Contributing *E. coli* to Peach Creek (Findings of Fact 38, 43, 44, 45; Conclusions of Law 4 and 6).

The ALJ makes the faulty conclusion in Finding of Fact 45 that the septic systems of Patton Village are currently contributing to elevated bacteria levels in Peach Creek. The majority of Patton Village is located well away from Peach Creek and there are two large man made lakes between Patton Village and Peach Creek. See Maps in Attachment 3 to Applicant's Exhibit 6. The ALJ's findings on this matter again stem from the testimony of Mr. Lazaro, who with out study, analysis, or evaluation, merely speculates that poorly operating septic system could be contributing to elevated bacteria levels in Peach Creek. Applicant's Exhibit A-4 at 11-12. With regard to this part of his opinion Mr. Lazaro testified as follows:

Q: (By Mr. Blackburn) Now, did you collect any samples that would indicate whether septic wastes were entering Peach Creek?

A: No.

Q: Did you undertake any type of field analysis of the septic systems themselves?

A: No.

TR at 19: 19- 25.

Without studying drainage patterns or analyzing the septic systems in any way, Mr. Lazaro merely speculates that eliminating these systems will improve conditions in Peach Creek. Mr. Lazaro again shows that his testimony is incompetent under Texas law. There was simply no evidence in the record to support this conclusions by the ALJ.

2. Bacteria Accumulation in Sediments and Regrowth (Findings of Fact 37, 38, 43, 44, 45; Conclusions of Law 4 and 6)

There is significant evidence in the record regarding the fact that bacteria accumulate in sediments down stream of wastewater discharges and that nutrients in discharges contribute to

the regrowth of bacteria instream. This issue is discussed in some detail in Dr. Miertschin's TCEQ sponsored study of Peach Creek. Protestant's Exhibit P-5. The TCEQ's witness Dr. Redda confirms this fact:

Q: (By Mr. Duson) But you agree that bacteria can deposit in sediments. Is that correct?

A: It can, yes, sir.

Q: It is known to. Correct?

A: Yes.

Q: Turning to nutrients, is there a limit on phosphorus in the draft permit?

A: No, it doesn't?

Q: Phosphorus, as you testified previously, has the potential to cause regrowth of bacteria in –

*** (overruled objection omitted)

A: Yes, it really matters, because phosphorus is a part of the building block for all microorganisms and all life forms.

Q: So it could cause a regrowth of bacteria in Peach Creek?

A: If we have high levels of phosphorus.

Q: And again, there is no limit?

A: We do not have a limit.

TR at 156: 20-24, 187: 22- 188:1, 188: 14-21.

The Applicant expert also agreed that nutrients could possibly cause regrowth of bacteria, that bacteria are known to deposit in sediments, and that this could contribute to excess bacteria downstream. TR at 59: 19- 60: 3, 60:4-10. Yet these facts were never considered with regard to the TSWQS criteria for contact recreation or the discharge's effect on bacteria levels in Lake Houston. TR at 62:15-17. This additional evidence that the proposed discharge will contribute to excess bacteria levels in Peach Creek and Lake Houston was not analyzed by the TCEQ or the Applicant, and was not considered by the ALJ.

V. CONCLUSION

Mr. Lazaro, the Applicant's main expert, failed to offer a single competent opinion in this case. The Texas Rules of Evidence require that we set aside his testimony in its entirety. After the initial hearing on the merits, the Applicant, perhaps realizing its evidentiary predicament, requested and received a new hearing to present evidence related to QUAL-TX modeling and dissolved oxygen. The testimony of the Applicant's expert at this second hearing, Dr. Miertschin, was by all accounts competent and reliable. However, Dr. Miertschin's testimony only related to the issue of dissolved oxygen which is only a portion of the TSWQS. The Applicant is still in the situation of having presented no evidence on most of referred issue one and all of referred issues two and three.

The failure of evidence in this case is broad. When a party with the burden of proof fails to present evidence justice requires dismissal. As Supreme Court Justice Frankfurter once stated regarding a trial judge's duty in this situation:

The easy but timid way out for a trial judge is to leave all cases tried to a jury for jury determination, but in so doing he fails in his duty to take a case from the jury when the evidence would not warrant a verdict by it. A timid judge, like a biased judge, is intrinsically a lawless judge.

Wilkerson v. McCarthy, 336 U.S. 53, 65 (1949).

The Commission is now in a situation similar to Frankfurter's trial judge. The ALJ's PFD is contrary to Texas law and this Commission's procedural rules. The Applicant has had two hearings to meet its burden, yet is still far from it. This permit application deserves dismissal. Let the Applicant reapply and let the process start anew.

The cumulative impact of this proposed discharge and many other existing discharges into the Lake Houston watershed have major public health implications, including the potential toxic effects on the citizen of the largest city in Texas. Despite well settled science on the

presence of environmental estrogens, nonylphenol, phthalates, and other notorious endocrine disruptor in wastewater effluent, both the TCEQ and the Applicant have failed to consider the effects these toxic substances will have on the uses of the receiving water and the health of the downstream public, especially the more sensitive groups such as pregnant women.

Ms. Casenave, as an affected landowner, protested this application to discharge wastewater into the creek that borders her property in good faith. Based on the evidentiary failure of the Applicant, the known presence of endocrine disruptors in wastewater effluent, and in the public interest of protecting the health of the downstream consumers, most notably, the residents of the City of Houston, Ms. Casenave specifically excepts to Findings of Fact numbers **18, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45; and Conclusions of Law 4 and 6** and further asks that this permit be denied.

Respectfully submitted,

BLACKBURN CARTER, P.C.

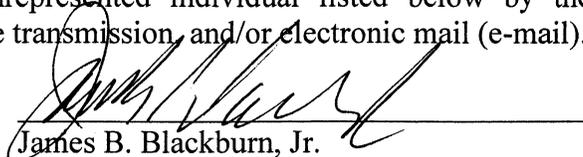
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CERTIFICATE OF SERVICE

On this 10th day of January, 2011, a true and correct copy of the foregoing instrument was served on the attorneys of record and unrepresented individual listed below by the undersigned via regular U.S. Mail, and/or facsimile transmission, and/or electronic mail (e-mail).


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