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TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

2008 APR 17 PM 4: 19

CHIEF CLERKS OFFICE

April 17, 2008

Via Hand Delivery

Ms. La Donna Castañuela
Chief Clerk (MC-105)
ATTN: Agenda Docket Clerk
Texas Commission on Environmental Quality
12100 Park 35 Circle, Bldg. F
Austin, Texas 78753

Re: SOAH Docket No. 582-07-0863; TCEQ Docket No. 2006-1931-MSW
Application of Waste Management of Texas, Inc. for a Municipal Solid Waste Permit Amendment; Permit No. MSW-66B

Dear Ms. Castañuela:

Enclosed for filing in the above-referenced docket, please find one original and twelve copies of Applicant Waste Management of Texas, Inc.'s Reply to TJFA's Exceptions to the Administrative Law Judge's Proposal for Decision. Please return one file-stamped copy to the courier. Thank you.

Respectfully submitted,

Bryan J. Moore

Enclosures
cc: Service List

ORIGINAL
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2008 APR 17 PM 4: 19
CHIEF CLERKS OFFICE

SOAH DOCKET NO. 582-07-0863
TCEQ DOCKET NO. 2006-1931-MSW

APPLICATION OF	§	**BEFORE THE STATE OFFICE**
WASTE MANAGEMENT OF TEXAS, INC.	§	
FOR A MUNICIPAL SOLID WASTE	§	**OF**
PERMIT AMENDMENT;	§	
PERMIT NO. MSW-66B	§	**ADMINISTRATIVE HEARINGS**

WASTE MANAGEMENT OF TEXAS, INC.'S REPLY TO TJFA'S EXCEPTIONS TO THE ADMINISTRATIVE LAW JUDGE'S PROPOSAL FOR DECISION

COMES NOW Applicant Waste Management of Texas, Inc. ("***Applicant***" or "***WMTX***") and, per 30 Tex. Admin. Code § 80.257(a), files this reply to Protestant TJFA's exceptions to the Administrative Law Judge's ("***ALJ's***") Proposal for Decision ("***PFD***") in the above-captioned matter. As set forth below, TJFA's exceptions lack support in the evidentiary record and cannot be reconciled with the statutory and regulatory requirements applicable to WMTX's application. Accordingly, TJFA's exceptions provide no basis for amending the PFD or any provision of the order proposed by the ALJ (the "***Proposed Order***").

Indeed, TJFA's exceptions are tellingly lacking in citations to the evidentiary record. TJFA states, as if they are fact, claims and assertions that are unsupported in the evidentiary record and contrary to the record evidence. The law is clear: the Commission may amend the ALJ's PFD, but any such amendment and ultimate order "*shall be based solely on the record made before the administrative law judge.*"[1] Accordingly, those TJFA exceptions that have no support in the evidentiary record are mere allegations and cannot be considered by the Commission. It is the fundamental purpose of an evidentiary hearing to go beyond mere allegations and establish an evidentiary record upon which the Commission can base its decision.

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[1] TEX. GOV'T CODE § 2003.047(m) (emphasis added); *see also id.* § 2001.141(c) (providing that "[f]indings of fact may be based only on the evidence and on matters that are officially noticed"); *id.* § 2001.174(2)(E) (providing for reversal of administrative findings and decisions that are "not reasonably supported by substantial evidence considering the reliable and probative evidence in the record as a whole").

Additionally, nearly all of TJFA's exceptions concern issues that were fully addressed in WMTX's Closing Argument and Response to Closing Arguments. TJFA failed to refute or otherwise rebut the evidence put forward by WMTX, which, as the ALJ determined, resolved each of TJFA's issues in favor of issuance of the proposed permit. TJFA's exceptions are largely restatements of TJFA's closing arguments. In fact, many of TJFA's arguments were taken verbatim from its closing briefs and merely repackaged and reargued as "exceptions" to the ALJ's PFD. Given that these arguments were fully briefed and argued by the parties, and thoroughly considered by the ALJ, they can be resolved by reference to the ALJ's PFD and WMTX's Closing Argument and Response to Closing Arguments. Accordingly, WMTX incorporates its closing briefs herein for all purposes and respectfully refers the Commission to its Closing Argument and Response to Closing Arguments, as well as the ALJs' treatment of these issues in the PFD.

I.
BACKGROUND

A. TJFA'S INTERESTS ARE NOT COMMON TO THE OTHER LANDOWNER PROTESTANTS

At the outset of its exceptions, TJFA seeks to align itself with the other "landowner Protestants" that were parties to this case.[2] WMTX does not dispute that TJFA owns land in proximity to the Mesquite Creek Landfill; however, two points warrant discussion. First, while TJFA may be "one of the landowner Protestants" in this matter, it was the only landowner – indeed, the only Protestant – to take exception to the ALJ's PFD.

Additionally, it should be noted that TJFA is not your typical "landowner Protestant." As established at the preliminary hearing in this matter, TJFA's sole representative in this case,

[2] TJFA's Exceptions at 1.

Mr. Bobby Gregory, owns the Texas Disposal Systems Landfill ("***TDSL***"). The TDSL facility is a municipal solid waste ("***MSW***") landfill located in southeastern Travis County that competes directly with the Mesquite Creek Landfill. Accordingly, TJFA's interests in seeking denial of WMTX's application are not common to the other landowners that participated in this case.

B. TJFA Offered No Expert To Support Many Of Its Claims

Reading TJFA's exceptions alone, one might be misled to believe that TJFA presented a significant body of expert testimony regarding the myriad points that TJFA's claims to have proven in its exceptions. The reality is that TJFA presented only one witness – a geologist. Yet in its exceptions, TJFA purports to have proven defects ranging from stormwater drainage to geotechnical engineering and landfill design. TJFA did not even offer the testimony or findings of an hydrologist to support its stormwater claims; neither did TJFA present an engineer of any kind, much less one with expertise in the geotechnical and other design aspects of a landfill.

By contrast, as set forth in WMTX's Closing Arguments, WMTX retained a highly accomplished team of experts to prepare its application, and presented the testimony of those experts at the hearing.[3] WMTX's experts explained the science that provides the foundation for the application. They explained the work that they conducted and the conclusions that they reached, which are all presented in WMTX's application. Their findings were not challenged by any credible expert testimony or evidence in this case. Moreover, the opinions and conclusions of WMTX's experts were in accordance with those of the TCEQ experts that reviewed WMTX's application and testified in this matter. Furthermore, TJFA's cross-examination of WMTX's experts at the hearing failed to adduce any testimony that would discredit any expert or their

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[3] *See* WMTX's Closing Arguments at 3-6.

work in this matter, or otherwise raise any reasonable question regarding the application's compliance with all applicable statutory and regulatory requirements.

II.
ARGUMENT

A. WMTX'S APPLICATION FULLY COMPLIES WITH ALL APPLICABLE REQUIREMENTS PERTAINING TO GEOLOGY AND HYDROGEOLOGY

1. No Portion Of Stratum IV Should Be Considered Part Of The Uppermost Aquifer

In its exceptions, TJFA claims, as it did in its closing arguments, that the "upper portion" of Stratum IV beneath the Mesquite Creek Landfill should be considered part of the uppermost aquifer at the site. TJFA's claims were fully addressed and refuted by WMTX in its closing briefs, and were considered and ultimately rejected by the ALJ in her PFD. Accordingly, TJFA's exceptions offer nothing that has not been previously argued and rejected.

No portion of Stratum IV should be considered part of the uppermost aquifer beneath the Mesquite Creek Landfill. There is no evidence in the record to suggest that Stratum IV, or any portion thereof, meets the regulatory definition of an "aquifer" – that it is "capable of yielding significant quantities of groundwater to wells or springs."[4] As discussed in WMTX's Closing Argument, the record evidence demonstrates just the opposite – that Stratum IV is not an aquifer per the applicable regulatory definition, or any reasonable definition of the term "aquifer."[5] Stratum IV is not capable of yielding *any* groundwater, much less *significant quantities* of groundwater.

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[4] 30 TEX. ADMIN. CODE § 330.2(6).

[5] *See* WMTX's Closing Argument at 9-16; *see also* Ex. APP-202 at 1051, 1733; ED Ex. 8 at 4:7-10 (Williamson); Trial Tr. at 1105:5-10 (Williamson).

TJFA contends that it was necessary to install piezometers screened in Stratum IV beneath the expansion site in order to further confirm the conclusion reached by WMTX's expert geologist, Ms. Meaux, and other geologists before her, that Stratum IV is not a water-bearing unit.[6] Indeed, TJFA claims that, without such piezometers, "the ALJ had no evidence" of whether Stratum IV is capable of yielding significant quantities of groundwater.[7] Such an assertion is patently false and contrary to the overwhelming evidence in the record and fundamental principles of groundwater science.

There is nothing to gain – no scientific uncertainty to resolve – from additional investigations of Stratum IV. There is no need to install piezometers in Stratum IV to demonstrate what the record already shows: Stratum IV does not transmit groundwater.[8] With one limited and minor exception, all 24 soil borings that were advanced into Stratum IV in the course of the subsurface investigation of the proposed expansion area showed no indication of *any* water in Stratum IV, or *any* evidence that Stratum IV would transmit groundwater.[9] In order

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6 *See* TJFA's Exceptions at 3-4.

7 *Id.* at 4.

8 *See* Trial Tr. at 671:16 to 672:1 (Meaux) ("We had no indications that [Stratum IV] would yield groundwater whatsoever, so I would not install piezometers" in that stratum.); *see also id.* at 509:1-16 (Meaux) ("There was no indication of water flowing in Stratum IV or any indications of water movement in Stratum IV."); *id.* at 512:10-17 (Meaux) (testifying that GeoSyntec's geologic investigation of the proposed expansion area did not show any evidence of water-bearing fractures in Stratum IV); *id.* at 513:15-16 (Meaux) ("There was no evidence of water movement in Stratum IV."); *id.* at 552:12-13 (Meaux) (testifying that there was no water noted in the boring logs for any of the fractures identified in Stratum IV); *id.* at 552:25 to 556:3 (Meaux) (explaining that it was "pretty clear" from the boring logs that Stratum IV would not convey groundwater).

9 *See id.* at 509:1-16 (Meaux) ("There was no indication of water flowing in Stratum IV or any indications of water movement in Stratum IV."); *id.* at 513:15-16 (Meaux) ("There was no evidence of water movement in Stratum IV."); *id.* at 552:25 to 556:3 (Meaux) (explaining that it was "pretty clear" from the boring logs that Stratum IV would not convey groundwater); *id.* at 670:21 to 671:3 (Meaux) (testifying that the 24 borings yielded "no evidence" that Stratum IV may be transmitting groundwater); *id.* at 1100:15-20 (Williamson).

for groundwater to exist in Stratum IV, even in theory, groundwater must travel vertically downward, past the interface of Stratum III and Stratum IV, where groundwater is monitored at the facility and known to exist, and into Stratum IV.[10] If movement of groundwater from Stratum III into Stratum IV were occurring, one would reasonably expect to find evidence of it in the boring logs, which penetrated through Stratum III and into Stratum IV. However, none of the 24 borings showed evidence of such groundwater movement.[11]

The 24 borings also showed "a very, very small amount" of fractures in Stratum IV, indicating that Stratum IV has little, if any, ability to transmit groundwater.[12] Moreover, none of the fractures identified in Stratum IV yielded any evidence of groundwater movement, further confirming that Stratum IV would not be expected to yield *any* groundwater to wells or piezometers.[13] Additionally, the samples of Stratum IV obtained from the geological

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The lone exception was a single boring that indicated one six-inch wet spot in the Stratum IV bedrock, approximately 72.5 feet below the interface of Stratum III and Stratum IV. *See id.* at 881:17-20, 915:12 to 917:13 (Clark); *id.* at 1100:15-20 (Williamson); Ex. APP-202 at 1282. A review of the log for that boring proves that the identified wet spot was isolated from above by 72.5 feet of dry bedrock that showed no evidence of groundwater. *See* Ex. APP-202 at 1280-82. A single, isolated occurrence of a six-inch wet spot 72.5 feet below dry bedrock in Stratum IV provides no support for TJFA's apparent claim that Stratum IV may transmit groundwater. *See, e.g.*, Trial Tr. at 1098:9-10 (Williamson) ("[T]here's no communication between Stratum III and Stratum IV."); *id.* at 1110:7-14 (Williamson) (testifying that groundwater does not appear to be moving from Stratum III into Stratum IV); *id.* at 844:15-25 (Clark) (agreeing that fractures that are isolated in a geologic unit would not be expected to transmit water).

[10] *See* Trial Tr. at 505:17-19, 520:8-15, 534:15 to 535:3, 555:4-17, 557:20-23, 562:20-21, 668:11-17, 669:19-23, 674:12 to 675:23 (Meaux); *id.* at 1110:7-14 (Williamson); *id.* at 842:25 to 843:16 (Clark).

[11] *See* sources cited *supra* note 9.

[12] Trial Tr. at 473:23-25 (Meaux); *see also id.* at 474:3-6, 474:24-25 (Meaux); APP-202 at 1037; *cf.* Trial Tr. at 667:13-14, 668:4-6 (Meaux) (testifying that GeoSyntec's geologic investigation revealed "a lot of vertical to high-angle fractures in Stratum III").

[13] *See* Trial Tr. at 512:10-17 (Meaux) (testifying that GeoSyntec's geologic investigation "found no water bearing fractures in Stratum IV"); *id.* at 552:12-13, 23-25 (Meaux) (explaining that, while there are fractures in Stratum IV, "there was no indication of water at all" in those fractures); *id.* at 1088:4-11, 1098:12-17 (Williamson) (testifying that he knows that groundwater doesn't move in the fractures in Stratum IV "[b]ecause none of the boring logs showed any water" in Stratum IV); *see also id.* at 1098:10-

investigation showed no signs of oxidation or coloring that would indicate that groundwater has historically moved through this stratum.[14]

TJFA's demand for piezometers in Stratum IV indicates a fundamental misunderstanding of the stepwise process of a groundwater investigation. The first step in that process is to conduct a soil boring investigation. If, and only if, the soil borings reveal evidence of groundwater or the potential for groundwater movement should the next step be taken, which is to install piezometers in an effort to confirm the presence of groundwater.[15] With respect to the subsurface investigations conducted for purposes of WMTX's application, whereas the soil borings advanced at the site showed evidence of groundwater or the hallmarks of groundwater movement in Stratum III, those same borings showed *no* evidence of groundwater or groundwater transmittal in Stratum IV.[16]

Because the soil borings indicated the presence of groundwater in Stratum III, WMTX's experts took the second step in the groundwater investigation process and installed piezometers in that stratum where the borings indicated that groundwater was or may be present.[17] By

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11 (Williamson) ("There may be fractures [in Stratum IV], but that doesn't mean that groundwater moves through them.").

14 *See id.* at 489:25 to 490:1-8, 16-23 (Meaux) (explaining that color changes are evidence of oxidation – that the stratum was exposed to water or air – and that "there was no color change observed [in Stratum IV], indicating that there was no oxygen or air that was in contact" with Stratum IV); *see also id.* at 485:6-8 (Meaux) ("There was much less evidence of weathering in the Stratum IV samples we observed than the Stratum III [samples].")

15 *See id.* at 528:24 to 529:4 (Meaux).

16 *See id.* at 670:21 to 671:7 (Meaux) (testifying that GeoSyntec's geologic investigation yielded "no evidence" that Stratum IV may be transmitting groundwater, but did yield "clear evidence" that Stratum III was transmitting groundwater); *id.* at 560:24 to 561:7, 562:25 to 563:3 (Meaux) (testifying that Stratum III had indications of groundwater, whereas "Stratum IV was dry"); *id.* at 1088:4-11, 1098:21-22 (Williamson) ("It appears that groundwater prefers to move through Stratum III.").

17 *See id.* at 561:24 to 562:4, 563:2-3, 563:12-13 (Meaux) ("I screened [the Stratum III piezometers] with my best indication where I would encounter groundwater."); *see also id.* at 505:17-19, 514:14-16,

contrast, the soil borings did not indicate the presence of groundwater in Stratum IV. Therefore, the investigation for groundwater in this stratum properly ended at step one. Whereas the evidence indicated that, if piezometers were installed in Stratum III, those piezometers would ultimately yield water, the evidence for Stratum IV indicated that the installation of piezometers in that stratum would be a futile exercise. Indeed, even TJFA's own witness, Dr. Clark, appeared to view the installation of piezometers in Stratum IV as more of an experiment than a necessity: "I'd put them in . . . just to give it a try."[18]

TJFA attempts to make much of the fact that, on two of the logs of the 24 borings advanced at the site, the field geologist reported that water was "lost" in the Stratum IV formation.[19] The "lost" water reported on these logs is water that was used in the boring process to core the bedrock; it is not groundwater and does not suggest that there is groundwater in Stratum IV.[20] The loss of such drilling water in Stratum IV has no bearing on whether Stratum IV naturally transmits groundwater.

The drilling water was likely "lost" when the core barrel encountered a fracture at depth within Stratum IV.[21] WMTX does not dispute that a few of its boring logs indicate that some fractures were encountered at depth within Stratum IV. However, the presence alone of such deep fractures – isolated from above by a significant expanse of dry bedrock showing no

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535:11-13, 565:2-15 (Meaux) (explaining that some Stratum III borings had no indications of water when they were drilled, but piezometers were installed in those locations and screened at the base of Stratum III where the boring logs indicated water would be moving).

18 *Id.* at 906:9-10 (Clark); *see also id.* at 895:13-20 (Clark) (testifying that he would put one monitoring well in Stratum IV to "just give something in Stratum IV here a chance, give it a try and see if it works"); *id.* at 823:12-18, 906:2-17 (Clark) (confirming that, no mater what the project is, or what the regulations require, Dr. Clark always wants more information).

19 *See* TJFA's Exceptions at 4; *see also* PFD at 17-18.

20 *See* PFD at 17-18; Trial Tr. at 547:21 to 548:3, 550:9-15 (Meaux).

21 *See* Trial Tr. at 547:21 to 548:15 (Meaux); *id.* at 1103:3-11 (Williamson).

evidence of groundwater – does not render Stratum IV an aquifer.[22] Futhermore, such deep fractures provide no support for TJFA's claim that the *upper* portion of Stratum IV is part of the uppermost aquifer at the site.

TJFA also falsely implies that the testimony of the Executive Director's expert geologist, Mr. Williamson, supports TJFA's unfounded claim that "Stratum IV is essentially a hydraulically connected underlying aquifer" – hydraulically connected to Stratum III.[23] Regarding this very claim, Mr. Williamson's testimony was unequivocal and unmistakable. Responding to a question from counsel for TJFA inquiring whether any portions of Stratum IV should be considered part of the uppermost aquifer, Mr. Williamson explained, as follows, that no portion of Stratum IV comprises any part of the uppermost aquifer beneath the Mesquite Creek Landfill:

> *[T]here's no communication between Stratum III and Stratum IV. There may be fractures, but that doesn't mean groundwater moves between them.*[24]

Because bedding planes, fractures, and seams are prevalent at the base of Stratum III, the lower reaches of Stratum III are orders of magnitude more permeable in the horizontal direction than Stratum IV is in the vertical direction.[25] Because of this difference in permeability, and because the Stratum III/IV contact is at a gradient beneath the site, groundwater will *always*

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22 *See, e.g., id.* at 844:15-25 (Clark) (agreeing that fractures that are isolated in a geologic unit would not be expected to transmit water).

23 TJFA's Exceptions at 4.

24 Trial Tr. at 1098:9-11 (Williamson); *see also id.* at 1110:7-14 (Williamson) (testifying that groundwater does not appear to be moving from Stratum III into Stratum IV). Even if Stratum IV or any portion thereof were to be considered an aquifer – a claim which is entirely without support – Stratum IV would also have to be "hydraulically interconnected" with Stratum III to be considered part of the "uppermost aquifer." 30 TEX. ADMIN. CODE § 330.2(158); *see also* Ex. APP-400 at 27:22 to 28:3 (Meaux) (testifying that Stratum III is not hydraulically interconnected to any underlying aquifer).

25 *See* Ex. APP-202 at 1037, 1052-53, 1188-289; Trial Tr. at 514:4-23 , 535:11-15, 541:14-20, 561:3-7 (Meaux).

travel laterally above and along the Stratum III/IV contact rather than vertically across the contact and into Stratum IV.[26] In fact, even TJFA's geologist, Dr. Clark, testified that it was his understanding that groundwater moves laterally along the Stratum III/IV contact beneath the landfill.[27]

As set forth above, in order for groundwater to exist in Stratum IV, even in theory, groundwater must travel vertically downward, through the saturated zone at the base of Stratum III, where groundwater is monitored at the facility and known to flow, and across the Stratum III/IV contact and into Stratum IV.[28] The lack of such vertical movement of groundwater into Stratum IV is what Mr. Williamson was referring to when he testified, as noted above, that "[t]here's no communication between Stratum III and Stratum IV."[29] Such movement, even in theory, is entirely without support in the evidentiary record. The characteristics of the stratigraphy beneath the site do not support such a theory and there is no evidence of such groundwater movement in any of the many soil borings that have been advanced beneath the site. Accordingly, there is no basis for TJFA's claim that the upper portion of Stratum IV – or any portion of Stratum IV – is part of the uppermost aquifer.

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26 *See* Trial Tr. at 669:4-23 (Meaux) (explaining that "gradient will take [groundwater] along the Stratum III/IV contact, which is typically at a slope"); *id.* at 675:11-23 (Meaux) (testifying that groundwater will always choose to flow along the interface of Stratum III and IV instead of across it): *see also id.* at 1098:21-22 (Williamson) ("It appears that groundwater prefers to move through Stratum III.").

27 *See id.* at 843:10-16 (Clark).

28 *See id.* at 505:17-19, 520:8-15, 534:15 to 535:3, 555:4-17, 557:20-23, 562:20-21, 668:11-17, 669:19-23, 674:12 to 675:23 (Meaux); *id.* at 1110:7-14 (Williamson); *id.* at 842:25 to 843:16 (Clark).

29 *Id.* at 1098:9-10 (Williamson); *see also id.* at 1110:7-14 (Williamson) (testifying that groundwater does not appear to be moving from Stratum III into Stratum IV).

2. Contrary To TJFA's Assertions, The Horizontal Hydraulic Conductivity Of Stratum IV Has Been Tested And Those Test Results Are Reliable

Despite its prior attempts in this case to rely upon the horizontal hydraulic conductivity of Stratum IV to support its misconception of the uppermost aquifer, TJFA asserts a contradictory claim that the horizontal hydraulic conductivity of Stratum IV is unknown. That claim, too, lacks merit. In a futile effort to support this claim, in its exceptions, TJFA quotes from the ALJ's PFD.[30] The quoted lines are taken from the ALJ's summary of "Protestants' Evidence and Arguments."[31] TJFA's attempt to characterize portions of this summary as the ALJ's own findings is disingenuous, to say the least.

It is undisputed that the Geology Report in the application includes the results of "slug tests" that were conducted beneath the existing facility to determine the horizontal hydraulic conductivity of Stratum IV.[32] Contrary to TJFA's assertions, the data from those tests are reliable and can be applied equally to the existing site and the proposed expansion area.

To the extent that there were questions regarding the reliability of any testing of Stratum IV, those questions concerned groundwater elevation measurements, not measurements of hydraulic conductivity.[33] Those questions concerned the source of the water in certain piezometers installed prior to WMTX's previous application for Permit No. MSW-66A; specifically, whether the water in the piezometers came from a source other than Stratum IV (e.g., infiltration from Stratum III or from the surface) due to improper construction of the

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30 *See* TJFA's Exceptions at 5.

31 *See id.*; PFD at 20-21.

32 *See* Ex. APP-202 at 1052-53, 1085, 1426-29, 1438-45; Trial Tr. at 529:9-22, 677:2-6 (Meaux); *see also* Ex. APP-202 at 1733; Ex. APP-500 at 12:4-11 (Gross).

33 *See* Trial Tr. at 677:7-21 (Meaux); *id.* at 906:18 to 909:8 (Clark).

piezometers or damage to the above-ground portions of the piezometers.[34] Obviously, water that does not come from Stratum IV should not be relied upon to determine whether there is any water in Stratum IV.[35] Because the source of the water in these Stratum IV piezometers is unknown, the water in the piezometer borehole is not a reliable measure of the presence or elevation of groundwater in Stratum IV.

However, as Ms. Meaux testified, *any* source of water may be used for purposes of determining the horizontal hydraulic conductivity of Stratum IV.[36] The source of the water does not affect the reliability of the measurement.[37] A "slug test" is simply a mechanical means of placing water in a borehole under pressure and forcing that water out of the borehole and into the surrounding stratum.[38] The resulting measure of the stratum's horizontal hydraulic conductivity is wholly unrelated to the source of the water or whether the stratum naturally contains any water at all: "Water is water" for purposes of conducting slug tests and measuring horizontal hydraulic conductivity.[39] A dry stratum containing no groundwater, such as Stratum IV, can be tested for its horizontal hydraulic conductivity simply by adding water to a borehole advanced into the stratum and conducting a slug test.[40]

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34 *See, e.g., id.* at 533:11-21, 538:16 to 540:22, 553:1-9 (Meaux); *see also id.* at 509:17 to 511:17, 571:3 to 572:15 (Meaux); *id.* at 908:11 to 909:8 (Clark).

35 *See id.* at 677:7-21 (Meaux); *id.* at 908:11 to 909:8 (Clark).

36 *See id.* at 675:24 to 676:16 (Meaux) (testifying that the source of the water used to conduct a slug test for horizontal hydraulic conductivity does not matter); *id.* at 571:3 to 572:1 (Meaux) (testifying that, for purposes of measuring hydraulic conductivity, "[w]ater is water").

37 *See id.* at 676:17 to 677:1 (Meaux).

38 *See id.* at 653:3-25 (Meaux); *id.* at 879:3-10 (Clark).

39 *Id.* at 571:3 to 572:1 (Meaux); *see also id.* at 675:24 to 677:1 (Meaux).

40 *See id.* at 675:24 to 677:1 (Meaux).

Because Ms. Meaux questioned the source of water found in the piezometers that were previously installed, at least partially, within Stratum IV, she did not rely upon groundwater elevation data obtained from those piezometers.[41] She did, however, properly rely upon horizontal hydraulic conductivity data obtained from slug tests conducted in those same piezometers, because the source of the water used to conduct the slug tests is immaterial to the reliability of the test data.[42]

TJFA's arguments, although somewhat vague and contradictory, appear to suggest that, even if the horizontal hydraulic conductivity data in the application is reliable – which it is – WMTX should have also tested the horizontal hydraulic conductivity of Stratum IV beneath the proposed expansion area. Additional testing of Stratum IV was neither necessary nor required by the applicable regulatory requirement or sound geologic principles.

While the Stratum IV horizontal hydraulic conductivity data in the application were derived from testing beneath the existing landfill, the record demonstrates that the characteristics of Stratum IV are consistent across the site, from the existing facility to the proposed expansion area.[43] Indeed, TJFA's own witness, Dr. Clark, testified that he would not expect the

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41 *See id.* at 509:17 to 511:17 (Meaux).

42 *See id.* at 677:2-6 (Meaux) (testifying that the slug tests that were conducted in Stratum IV tested the horizontal hydraulic conductivity of only Stratum IV beneath the Mesquite Creek Landfill); *see also id.* at 533:11-21, 538:16 to 540:22, 571:3 to 572:1 (Meaux) (testifying that the horizontal hydraulic conductivities for Stratum IV listed in the application "do represent . . . the transmissivity of the sediments"); *id.* at 830:5-10 (Clark) (testifying that the slug tests conducted for at the Mesquite Creek Landfill "were properly performed"); *id.* at 1100:9-14 (Williamson) (testifying that the slug test information in the application is sufficient and adequate and that the test methods complied with the applicable regulatory requirements).

43 *See* Ex. APP-202 at 1036-37, 1043, 1044; Ex. APP-400 at 23:19-27, 25:16-27, 26:15 to 27:2 (Meaux); Ex. APP-500 at 10:24 to 11:2 (Gross).

unweathered portion of the Lower Taylor Group (i.e., Stratum IV)[44] to change from one location to another.[45] Furthermore, the applicable regulatory requirement, 30 Tex. Admin. Code § 330.56(d)(5)(B), requires testing only of "one sample from each soil layer or stratum." WMTX's application exceeds the applicable regulatory requirement in that it includes horizontal hydraulic conductivity test results from not one, but three slug tests conducted in three separate Stratum IV piezometers.[46]

3. The Geology Report In WMTX's Application Contains The Requisite Floodplain Discussion Required By TCEQ's Rules

TJFA erroneously claims that the Geology Report in WMTX's application does not discuss whether the landfill is located in a floodplain that constitutes "unfavorable topography" and a "limitation of the facility" as required by TCEQ's rules.[47] The requisite discussion is in § 2.2 of the Geology Report.[48] TJFA apparently refuses to recognize this discussion simply because TJFA disagrees with the report's finding that the existing facility and the proposed expansion area are located in an area of minimal flooding and outside of the 100-year floodplain.[49] For the reasons set forth below, TJFA's disagreement is misplaced.

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44 *See* Trial Tr. at 470:5-7 (Meaux); *id.* at 838:16-19 (Clark).

45 *See id.* at 855:22 to 856:4, 860:11-17 (Clark).

46 *See* Ex. APP-202 at 1052, 1085; *see also* Trial Tr. at 1100:9-14 (Williamson) (testifying that the slug tests discussed in the application complied with the applicable regulatory requirements).

47 30 TEX. ADMIN. CODE § 330.56(d)(1).

48 *See* Ex. APP-202 at 1020.

49 *See id.*

B. WMTX'S PROPOSED GROUNDWATER MONITORING SYSTEM IMPROVES UPON THE EXISTING SYSTEM AND IS FULLY PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT

1. The Installation Of Groundwater Monitoring Wells Into Stratum IV Is Neither Required Nor Necessary

For the reasons set forth in the preceding discussion, and in WMTX's closing briefs, groundwater monitoring wells screened in Stratum IV, as TJFA proposes,[50] would serve no useful purpose. Obviously, the purpose of groundwater monitoring wells is to monitor *groundwater*. There is no legitimate reason to install groundwater monitoring wells in a geologic unit that does not transmit groundwater – there is nothing for the wells to monitor. Indeed, the one monitoring well that was previously installed into Stratum IV at the existing facility was decommissioned because it was *always dry*.[51]

WMTX recognizes that a portion of the existing landfill has been excavated into the top of Stratum IV, per the facility's then-current permit, and that a portion of the expansion area is proposed to be excavated a few feet into this stratum as well.[52] However, such excavations are not cause for installing monitoring wells in Stratum IV. TCEQ's rules require monitoring only

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50 *See* TJFA's Exceptions at 8.

51 *See* Ex. APP-202 at 1051 (discussion at § 8.3.4.), 1084 (indicating that monitoring well MW-5 was installed in Stratum IV), 1736 (discussing monitoring well MW-5); Trial Tr. at 911:21 to 912:25 (Clark) (same); *id.* at 1129:3-9 (Williamson) (same).

52 *See* Trial Tr. at 566:19 to 569:8 (Meaux).

of the uppermost aquifer beneath the site,[53] and, as noted above, define an aquifer as a unit "capable of yielding significant quantities of groundwater to wells or springs."[54]

As demonstrated above, Stratum IV is certainly not an aquifer by TCEQ's definition, or any reasonable definition of the word. Even TJFA's own witness, Dr. Clark, considered Stratum IV an aquitard – at least he did during his deposition[55] – and at the hearing seemed less than optimistic regarding the success of a monitoring well in that stratum: "I would put one monitor well in Stratum IV . . . just give something in Stratum IV here a chance, give it a try and see if it works."[56] As noted above, a monitoring well was previously installed in Stratum IV, and it failed to produce water. Thus, Dr. Clark's experiment has already been performed and the results confirmed that there is no reason to repeat that experiment again.

Moreover, one of the fundamental purposes of groundwater monitoring wells is to provide early detection of a release so that measures can be taken to prevent contamination of usable groundwater resources.[57] In the unlikely event that the liner of the landfill is breached and constituents are released from a disposal unit excavated into Stratum IV,[58] there is no concern for contamination of usable groundwater. If constituents should exit the landfill's synthetic liner, and if the constituents should further migrate through the compacted clay liner

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53 *See* 30 TEX. ADMIN. CODE § 330.231(a), (a)(2), (c); *see also id.* § 330.230(b) (providing that groundwater monitoring requirements may be suspended by TCEQ if the facility "can demonstrate that there is no potential for migration of hazardous constituents from [the facility] to the uppermost aquifer").

54 *Id.* § 330.2(6); *see also id.* at § 330.2(158) (defining "uppermost aquifer" to include "lower aquifers that are hydraulically interconnected with" the uppermost aquifer); Trial Tr. at 1098:9-10 (Williamson) ("[T]here's no communication between Stratum III and Stratum IV.")

55 *See* Trial Tr. at 839:8 to 840:19 (Clark); *see also id.* at 840:20 to 841:9 (Clark) (defining an aquitard as a geologic unit that "would not significantly permit water to move beneath it").

56 *Id.* at 895:13-20 (Clark).

57 *See, e.g.*, 30 TEX. ADMIN. CODE §§ 330.236, 330.237.

58 *See* Trial Tr. at 712:2 to 713:18 (Hultman) (explaining that a release of leachate from a landfill is an unlikely and rare event).

underlying the synthetic liner,[59] then the constituents will encounter hundreds of feet of dry bedrock through which the constituents theoretically could migrate, if at all, only at the rate of 0.000000006 centimeters per second.[60]

2. Monitoring Well MW-2 Should Be Removed And Replaced As Proposed In WMTX's Application

As explained in the application and by Ms. Meaux, one improvement that WMTX is proposing for the groundwater monitoring network for the existing facility is to replace monitoring well MW-2 with well MW-2A, because MW-2 is functioning as an upgradient well, not as a true downgradient well, the purpose it was intended to serve.[61] TJFA challenges this improvement, claiming that MW-2 is "potentially" a downgradient well.[62] There is no credible evidence in the record to support TJFA's claim.

Both Ms. Meaux and Mr. Williamson testified that, in their respective expert opinions, the historic groundwater data and contour maps in the application show that MW-2 is

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59 *See* 30 TEX. ADMIN. CODE § 330.200(b) (specifying the requirements for a composite liner, and requiring the compacted clay liner to have a hydraulic conductivity of no more than 1×10^{-7} centimeters per second).

60 *See* Ex. APP-202 at 1733 (stating that the thickness of Stratum IV exceeds 260 feet and that approximately 460 feet of "very low hydraulic conductivity sediments" separates the base of the landfill from the top of the Edwards Aquifer); *id.* at 1053 (listing 6.1×10^{-9} as the vertical hydraulic conductivity of Stratum IV); Trial Tr. at 1088:12-23 (Williamson) (same).

Notably, Stratum IV is naturally more impermeable than the compacted clay liner that TCEQ's rules require to underline the facility's synthetic liner. *See* 30 TEX. ADMIN. CODE § 330.200(b) (requiring the compacted clay liner to have a hydraulic conductivity of no more than 1×10^{-7} centimeters per second).

61 *See* Ex. APP-202 at 1739; Trial Tr. at 599:16 to 600:2, 603:17 to 604:2, 608:2-10, 677:22 to 678:24 (Meaux).

62 TJFA's Exceptions at 10.

functioning as an upgradient well.[63] Additionally, the historic potentiometric maps of the existing facility that were not prepared for purposes of the pending application also show MW-2 as an upgradient well.[64]

Even TJFA's own witness, Dr. Clark, provided little, if any, support for TJFA's claim that well MW-2 is a downgradient well and should be retained as such, or that additional wells should otherwise be added along the existing facility's boundary paralleling Kohlenberg Lane. On redirect, Dr. Clark reviewed a "Leachate Collection System Plan" that was prepared for WMTX's prior application for Permit No. MSW-66A and concluded, in part from the topographic contour lines shown on that plan and in part from his "general impression" of the topography at the site, that a release of leachate from the existing landfill "could possibly" cross under Kohlenberg Lane.[65]

Notably, Dr. Clark didn't offer the foregoing opinion based on the potentiometric maps in the application, or even on any information in the geology or groundwater portions of the application. His opinion was based solely on topography and, further still, largely on his "general impression" of the surface topography that he gained from a visit to the site.[66] As

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63 *See* Trial Tr. at 613:4 to 614:25 (Meaux) ("[T]he water that would come to [MW-2] is clearly from offsite."); *id.* at 1126:4 to 1128:13 (Williamson) (testifying that the potentiometric maps in the application do not support a claim that MW-2 is a downgradient well).

64 *See* Ex. APP-202 at 1376-80.

65 Trial Tr. at 883:4 to 884:22 (Clark).

66 *See id.* at 884:8-22 (Clark); *see also id.* at 891:6-14 (Clark) (testifying that the basis for his proposal to put additionally monitoring wells along Kohlenberg Lane was "based on the topography and the concept that groundwater flow at the site is topographically controlled").

If Dr. Clark's "general impression" of the topography that he's seen at the site is based on the one formal site visit that he made during the discovery process, then that "general impression" is even more suspect. The formal site visit that Dr. Clark attended was a driving tour of the facility that Dr. Clark himself described as follows: "We were moving right along in our trucks . . . ." *Id.* at 831:2 to 832:1 (Clark).

Mr. Williamson explained, while groundwater generally flows in relative conformance with the surface topography at the site, that general rule is not an absolute.[67] Therefore, groundwater potentiometric maps, if available, are the more definitive source for determining the direction of groundwater flow.[68]

In fact, on recross-examination, Dr. Clark examined a potentiometric map from the Geology Report in the application and agreed that, in the area of well MW-2, the map shows groundwater flowing towards Mesquite Creek – towards the proposed location of well MW-2A – not beneath Kohlenberg Lane.[69] Furthermore, when Dr. Clark explained his reasoning for proposing additional wells along Kohlenberg Lane, it was apparent that this was yet another instance of Dr. Clark simply wanting to experiment and wanting more information, regardless of what the regulations require: "I have an interest in what might be happening with old pre-Subtitle D landfills, so I would want to see not only two but more monitor wells along Kohlenberg Lane."[70]

For the foregoing reasons, and based on the testimony in the record and the groundwater information in WMTX's application, monitoring well MW-2 should be replaced with a true downgradient well, MW-2A, as proposed in the application. Additional wells along Kohlenberg Lane, while perhaps an interesting proposition to Dr. Clark, are neither required nor necessary.

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67 *See id.* at 1126:21-22 (Williamson) ("Groundwater doesn't move always by topographic means.").

68 *See id.* at 1126:19 to 1127:23 (Williamson) ("I would lean more on the . . . potentiometric surface maps.")

69 *See id.* at 910:18 to 911:20 (Meaux).

70 *Id.* at 887:22-25 (Clark); *see also id.* at 823:12-18, 906:2-17 (Clark) (confirming that, no mater what the project is, or what the regulations require, Dr. Clark always wants more information).

3. There Is No Evidence Of Ponds Influencing Any Of The Monitoring Wells At the Facility, Nor Any Reason To Expect That Such Influence May Occur

TJFA claims that two existing stormwater ponds – ponds A and B – at the Mesquite Creek Landfill may influence certain groundwater monitoring wells, including wells that have been in existence for over fifteen years (MW-3 and MW-4),[71] and one that is proposed to be installed, per WMTX's application, to improve the existing monitoring network (MW-2A).[72] These claims were fully addressed and refuted in Applicant's Closing Argument.[73]

Notably, in its exceptions, TJFA continues to base its claims on the mistaken premise that existing ponds A and B are "retention" ponds, which store water indefinitely.[74] As discussed in Applicant's Closing Argument, Mr. Graves testified that these ponds were "detention" ponds, designed to detain water temporarily and release it at a controlled rate.[75] Indeed, Mr. Graves testified that "pond" B is "really just a wide ditch" that "provides so little storage capacity."[76] Clearly, the possibility of water seeping into the ground beneath a detention pond is much more remote than if the pond were designed as a retention pond to retain water.[77]

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71 *See* Ex. APP-202 at 1065, 1325-29, 1736 (noting installation of MW-3 and MW-4 in 1992).

72 *See id.* at 1739; Trial Tr. at 599:16 to 600:2, 603:17 to 604:2, 608:2-10, 677:22 to 678:24 (Meaux).

73 *See* WMTX's Closing Argument at 18-21.

74 TJFA's Exceptions at 10-11.

75 *See* WMTX's Closing Argument at 19-20.

76 Trial Tr. at 137:21 to 138:1 (Graves); *see also id.* at 143:17-19 (Graves) (explaining that Pond B is essentially a ditch, small in size and with limited storage volume); Ex. APP-202 at 1857 ("It is noted that Pond B along the south side of Unit 1 was not incorporated into the [stormwater pond design] model due to its small size and minimal storage/detention capabilities. The primary function of Pond B is to serve as a sediment trap for higher frequency storms.").

77 Nevertheless, even under the theory that Pond A was a retention pond, Ms. Meaux testified that there was only a "slim possibility" that water retained in the pond could influence MW-3. *See id.* at 586:19 to 587:1 (Meaux); *see also id.* at 619:1-2 (guessing that "it's possible" that ponded water in Pond A could influence MW-2A). Putting aside the fact that this "slim possibility" was premised on a false assumption, proof by a preponderance of the evidence "does not require the quality of absolute

In its exceptions, TJFA takes the position that pond A is, at least in part, a retention pond because a small amount of water accumulates at the far end of the pond beneath the elevation of the pond's outlet structure.[78] Under any reasonable definition of a retention pond, a six-inch puddle of water at one end of a pond that is designed only to detain water does not render that pond a retention pond. Furthermore, it is interesting to note that, without acknowledging any differences in the design of the ponds, TJFA claims that existing pond A is a retention pond, whereas the ponds proposed for the expansion area are "real detention ponds."[79] Instead of tailoring its claims to account for how these ponds truly function, TJFA merely re-labels the ponds to suit its claims.

In any event, as explained in WMTX's Closing Argument, there is no evidence that any of the currently existing stormwater ponds are influencing any of the currently existing monitoring wells, nor is there any reason to expect that any of the additional wells proposed in WMTX's application will be influenced by a stormwater pond. Ms. Meaux reviewed the historic groundwater data for MW-3 and MW-4 and concluded that the data were stable over time and did not indicate any outside influence.[80] Additionally, both MW-2A and MW-3 are upgradient of the stormwater pond in question and, therefore, would not be influenced by the pond (i.e.,

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certainty nor does it require that [Applicant] preclude every other possibility." *State Farm Mut. Ins. Co. v. Davis*, 576 S.W.2d 920, 921 (Tex. Civ. App.—Amarillo 1979, writ ref'd n.r.e.) (internal citations omitted); *see also Bufkin v. Tex. Farm Bureau Mut. Ins. Co.*, 658 S.W.2d 317, 230 (Tex. App.—Tyler 1983, no writ); *First State Bank v. Md. Cas. Co.*, 918 F.2d 38 (5th Cir. 1990).

78 *See* TJFA's Exceptions at 11.

79 *Id.* at 11.

80 *See* Trial Tr. at 585:18-22 (Meaux) (testifying that "the groundwater elevation in MW-3 was fairly stable" and "didn't fluctuate"); *id.* at 621:24 to 622:24 (Meaux) (testifying that the groundwater water elevation data dating back to 1992 for MW-4 "seems to be fairly stable over time").

water does not flow uphill).[81] Indeed, even Dr. Clark agreed that the location of MW-2A is "a reasonable place to put a well."[82]

Additionally, as explained by Ms. Meaux, infiltration from the site's detention ponds would be impeded by the swelling of the clays at the base of the ponds from contact with the ponded water.[83] Add to that the low natural permeability of Stratum III where the wells are screened and the effects of evaporation in the Central Texas heat, and there is no reason to expect that any of the stormwater ponds at the site are influencing or will influence any of the facility's existing or proposed monitoring wells.[84]

4. TCEQ Previously Determined, And The ALJ Reaffirmed, That Assessment Monitoring Was Not Triggered By Prior Unconfirmed Detections

In its exceptions, TJFA claims that there was a detection of 1,1-dichloroethene ("***1,1-DCE***") at the Mesquite Creek Landfill that triggered, or should have triggered, assessment monitoring. TJFA's claims constitute an impermissible collateral attack on an agency determination that was made roughly five years ago. In April 2003, TCEQ issued a letter to WMTX acknowledging that assessment monitoring requirements had not been triggered.[85] The ALJ correctly reaffirmed this prior agency determination.

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81 *See id.* at 607:19-20, 618:4-10, 684:10-12, 684:17-19 (Meaux); *see also id.* at 904:18-23 (Clark) (testifying that water moves from upgradient to downgradient); *id.* at 629:17-21, 631:21-24, 690:15-23 (Meaux) (testifying that groundwater at the landfill generally flows in relative conformance to topography, from a topographic high to a topographic low); *id.* at 586:8-13 (Meaux) ("[I]t doesn't look like the pond could recharge MW-3 because we are screening the zone below the base of the pond.").

82 *See id.* at 887:14-21 (Clark).

83 *See id.* at 688:12-21 (Meaux).

84 *See id.* at 686:8-24, 688:22 to 689:14 (Meaux).

85 *See id.* at 579:18 to 580:14 (Meaux); *id.* at 1137:10 to 1139:6 (Williamson); Ex. APP-202 at 1737.

Furthermore, every witness that TJFA's counsel questioned regarding this issue testified that there was never a confirmed detection of 1,1-DCE at the facility that would have triggered assessment monitoring.[86] Indeed, even Dr. Clark testified that a detection should be confirmed through resampling.[87] Additionally, TJFA's claims are premised on the erroneous assumption that the prior unconfirmed detections of 1,1-DCE were caused by a release of leachate from the landfill. Any such theory was soundly disproved by Mr. Kerfoot, one the foremost experts on landfill gas transport and landfill gas effects on groundwater at municipal solid waste facilities.[88]

Mr. Kerfoot testified that, within a reasonable degree of scientific certainty, the unconfirmed detections of 1,1-DCE in well MW-3 at the existing facility were the product of landfill gas transport, not a release of leachate from the facility.[89] Mr. Kerfoot's testimony was not challenged by any competing expert, nor was it discredited on cross-examination in any way.

Accordingly, it is undisputed that the prior, unconfirmed detections of 1,1-DCE at MW-3 were the product of landfill gas and did not trigger the groundwater-related regulations that TJFA cites in its exceptions.[90] There simply is no evidence in the record to the contrary. Indeed, the unconfirmed detections of 1,1-DCE occurred solely at a single monitoring well, and 1,1-DCE has not been detected – unconfirmed, confirmed, or otherwise – in any groundwater monitoring well at the facility since the last unconfirmed detection of the compound in 2002.[91]

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86 *See, e.g.*, Trial Tr. at 573:4 to 579:17 (Meaux); *id.* at 1135:13 to 1136:6, 1139:23 to 1140:8, 1141:3-7 (Williamson).

87 *See id.* at 852:5 to 854:15, 862:13-23 (Clark).

88 *See id.* at 1181:5 to 1187:9 (Kerfoot); Ex. APP-800.

89 *See* Trial Tr. at 1197:22 to 1198:12 (Kerfoot); *see also id.* at 577:21 to 578:13, 694:17 to 695:15 (Meaux).

90 *See id.* at 578:23 to 579:17 (Meaux); *id.* at 1135:13 to 1141:11 (Williamson).

91 *See id.* at 577:5-20, 580:15-18 (Meaux); *id.* at 1135:13 to 1137:6, 1141:3-7 (Williamson); Ex. APP-202 at 1737.

C. THE ALJ CORRECTLY CONCLUDED, BASED ON THE RECORD EVIDENCE, THAT THE INCREASED VOLUME OF STORMWATER THAT WILL BE DISCHARGED FROM DISCHARGE POINT E IS NOT SIGNIFICANT AND WILL NOT SIGNIFICANTLY ALTER NATURAL DRAINAGE CONDITIONS

In its exceptions, TJFA summarily claims that increasing the volume of stormwater runoff discharging at a single discharge point, point E, from 6.9 acre-feet ("***ac-ft***") to 12.1 ac-ft is *per se* significant and may result in a significant alteration of drainage patterns at some point downstream of the facility.[92] Actually, in its exceptions, TJFA never references the actual volume that will be discharged at point E, attempting instead to sensationalize the facts by claiming that the volume "will increase by about 200%."[93] TJFA's math is as faulty as its legal claims.

The proposed increase in stormwater runoff volume discharging from point E in the post-developed condition is an increase of 5.2 ac-ft above the 6.9 ac-ft discharging from that point in the natural condition. That is an increase of 75%. While, as set forth below, the percentage increase in runoff volume is not material to the stormwater drainage analysis, if TJFA is going to rely solely on such percentage, one would reasonably expect TJFA to use the correct percentage or, at the very least, to be consistent with respect to the incorrect percentage that it claims. Furthermore, of the five discharge points proposed for the Mesquite Creek Landfill (points A through E), discharge point E will be discharging the *second smallest volume of water.*[94] For

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92 The pre- and post-development runoff volumes for discharge point E are provided in APP-202 at 1820 (Table 3.5.1-3).

93 TJFA's Exceptions at 14. In its exceptions, TJFA variously refers to the percentage increase in stormwater runoff volume at discharge point E as "about 200%," "200%," and "over 200%." *Id.* at 14, 15, 19, 20. Here again, TJFA is concerned solely with sensationalism.

94 *See* Ex. APP-202 at 1820 (Table 3.5.1-3).

purposes of context and comparison, discharge point B will discharge 1,182 ac-ft, and discharge point A will discharge 400 ac-ft.[95]

TJFA's position – that the percentage increase in runoff volume at a single discharge point alone should be determinative of whether natural drainage patterns will be significantly altered – fails to recognize that runoff volume is one of many considerations that inform a stormwater analysis. Moreover, applying TJFA's myopic position – that a doubling of the discharge volume at a single point is *per se* significant – doubling a volume even as small as a cup full would constitute a significant alteration of natural drainage patterns under any circumstances, even if the rate and velocity of the increased discharge have been substantially reduced.

Not surprisingly, TJFA's approach is directly at odds with TCEQ's *Guidelines for Preparing a Surface Water Drainage Plan for a Municipal Solid Waste Facility* ("***Surface Water Guidelines***").[96] In its *Surface Water Guidelines*, TCEQ expressly recognizes that "[t]here is no clear-cut number or percentage of change that can be set to indicate a 'significant' change."[97] Rather, what constitutes a "significant alteration" is "a subjective term that cannot be defined as a specific, objective criterion."[98] Nevertheless, despite this clear guidance, TJFA maintains the additional 5.2 ac-ft of runoff that will discharge from discharge point E is *per se* significant. For the reasons set forth below, this increased volume of stormwater runoff is not significant and will not significantly alter natural drainage patterns.

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95 *See id.*

96 Ex. APP-209.

97 *Id.* at 3, § 2.1.

98 *Id.* at 3, § 2.1.1.

1. The Increased Volume Of Stormwater Discharged From Point E Will Be Discharged At Rates And Velocities That Are Less Than Those That Occur Under Natural Drainage Conditions

Increased volumes of stormwater runoff resulting from the development of a landfill are not exceptional, given that the natural ground surface is being replaced by the above-grade portions of the landfill, which have elevated sidewalls and slopes and a nearly impermeable final cover that is designed to prevent the infiltration of precipitation.[99] Indeed, TCEQ's *Surface Water Guidelines* specifically recognize that, by developing a site as a landfill, the overall volume of stormwater runoff from the site will increase in the developed condition.[100]

Thus, the question is not whether stormwater runoff will increase as a result of landfill development – the question is how will the facility manage the increased stormwater volumes to ensure that "natural drainage patterns will not be significantly altered as a result of the proposed landfill development."[101] At the Mesquite Creek Landfill, increased volumes of stormwater runoff resulting from development of the expanded landfill will be managed through the use of detention ponds.[102] The facility's detention ponds have been designed to accommodate the calculated increases in stormwater runoff – to detain those volumes and discharge them, via the site's drainage points, in a controlled manner that will not significantly alter natural drainage patterns.[103]

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99 *See, e.g.*, Trial Tr. at 71:22-25, 72:15-19 (Graves).

100 *See* Ex. APP-209 at 4, § 2.1.2.

101 30 TEX. ADMIN. CODE § 330.56(f)(4)(A)(iv).

102 *See* Trial Tr. at 75:5-24, 83:17 to 84:25, 99:5-25, 273:1 to 274:9, 294:7-17, 295:10-15, 297:3-16 (Graves).

103 *See id.* at 345:20 to 346:7 (Graves).

Specifically with respect to discharge point E, the increased volume of stormwater discharged from the developed site will be discharged at a peak discharge rate and a maximum flow velocity that are less than those that occur at discharge point E under natural drainage conditions. In the natural (i.e., pre-landfill development) condition,[104] stormwater is being discharged at point E at a peak discharge rate of 43 cubic feet per second ("***cfs***").[105] The design of the detention ponds and other stormwater management features proposed for the expanded landfill will reduce this peak discharge rate by more than half – from 43 cfs to 21 cfs.[106] Similarly, the maximum flow velocity for stormwater discharging from point E will be significantly reduced, from 4.25 feet per second ("***ft/s***") to 3.55 ft/s.[107] In terms of percentages, which is TJFA's sole focus, the peak discharge rate at point E will be reduced by 105% and the maximum flow velocity will be reduced by 20%.

Thus, while the volume of stormwater discharging at point E will increase following development of the expansion area, that increased stormwater will be detained (i.e., attenuated) by the facility's detention ponds and released at the facility boundary at rates and velocities that are substantially less than those that are occurring today and that have historically occurred in the natural drainage condition.[108] Contrary to TJFA's assertions, the use of detention ponds in this

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104 *See* Ex. APP-200 at 47:13-26 (Graves) (explaining what constitutes "natural," "pre-development," and "post-development" drainage conditions); *see also* Trial Tr. at 74:17 to 75:4 (Graves).

105 *See* Ex. APP-202 at 1820 (Table 3.5.1-2).

106 *See id.*; *see also* Trial Tr. at 297:20 to 297:7 (Graves) (explaining that the rate of discharge leaving the facility at the discharge point is "the primary concern" when designing a stormwater drainage system for a landfill); *id.* at 346:14 to 347:8 (Graves) ("[T]he peak flow rate has been substantially reduced compared to the natural conditions."); *id.* at 352:22-24 (Graves) ("I have reduced the peak flows almost in half from the natural conditions to the post-development conditions."); *id.* at 981:6-23, 983:15-23 (Prompuntagorn).

107 *See* Ex. APP-202 at 1821 (Table 3.5.1-5).

108 *See* Trial Tr. at 346:14 to 347:8 (Graves).

manner – to control stormwater runoff volumes and maintain or improve natural drainage conditions – is entirely consistent with the guidance provided by TCEQ in the agency's *Surface Water Guidelines*:

> A focus of a storm water management system design for a MSW facility should be to return the storm water flow to its predevelopment condition before it leaves the permit boundary—a goal that is also consistent with maintaining natural drainage patterns. *To achieve this goal, locate detention pond outlet structures and other velocity-dissipation devices upstream from the storm water discharge point to allow flow to return to the predevelopment condition at the permit boundary.*[109]

The *Surface Water Guidelines* further provide that one of the "[t]ypical methods" for demonstrating that an increase in stormwater runoff is not "significant" is to design the landfill such that the additional stormwater volume will be released from the landfill at a rate that will not significantly affect natural drainage patterns.[110] Accordingly, by utilizing detention ponds to lessen discharge rates and velocities and improve the natural drainage condition at discharge point E, WMTX has demonstrated that the proposed increase in stormwater runoff volume discharging at point E will not significantly alter natural drainage patterns.[111] Mr. Graves's testimony on this issue was unequivocal: "*No significant impact. Yes, I'm confident.*"[112] TJFA fails to cite any evidence (and offered no witness of its own) to explain how discharging at rates

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[109] Ex APP-209 at 5, § 2.1.3 (emphasis added); *see also id.* at 13, § 7 (discussing the purpose and design of detention ponds in landfill drainage systems).

[110] *Id.* at 4, § 2.1.2.

[111] *See* Ex. APP-200 at 48:6-12 (Graves); *see also* Trial Tr. at 293:23 to 294:6, 346:14 to 347:8, 348:9-15, 352:10 to 353:3 (Graves); Ex. APP-209 at 4, § 2.1.2 (providing that one of the "[t]ypical methods for addressing" increases in stormwater runoff volume is to "[d]emonstrate that the additional volume will be released at a rate that will not significantly affect" natural drainage patterns).

[112] Trial Tr. at 347:9 to 348:15 (Graves); *see also id.* at 99:5-25 (Graves) (testifying that he has no concerns regarding the discharge of additional volume at point E); *id.* at 352:10 to 353:3 (Graves) (testifying that the discharge of additional volume at point E would have "no effect" on drainage patterns, and that the reduction in peak flows "would be beneficial").

and velocities that are substantially *less* than those occurring in the natural drainage condition could significantly alter natural drainage patterns – drainage patterns that, in their natural state, are receiving waters at rates and velocities substantially *higher* than what will be discharged from point E following development of the landfill.

TCEQ's *Surface Water Guidelines* also provide that "the 'significantly altered' issue is best determined on a case-by-case basis and is one of professional judgment."[113] TJFA attempts to fault Mr. Graves for his use of engineering judgment in responding to certain of the questions and hypothetical scenarios posed by counsel for TJFA on cross-examination. While TJFA asserts that various factors should inform Mr. Graves's professional judgment, it is clear that TJFA is seeking additional engineering calculations, not more informed engineering judgment. As the ALJ found, Attachment 6 to Part III of WMTX's application contains the requisite engineering calculations to demonstrate that natural drainage patterns will not be significantly altered as a result of the proposed landfill development.[114] For the reasons set forth below, the additional engineering calculations that TJFA claims are lacking are not required for, nor properly part of, a demonstration of no significant drainage alterations.

2. TCEQ Rules And Precedent Require That The Determination Of Significant Alterations To Natural Drainage Patterns Be Made At The Permit Boundary, Not Off-Site

TJFA attempts to discredit WMTX's stormwater drainage analysis under a misguided theory that the analysis should have analyzed stormwater discharges from discharge point E at any given number of undetermined points at some undisclosed distance off-site and downstream of the facility's permit boundary. However, TJFA fails to offer any support for its theory.

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113 Ex. APP-209 at 3, § 2.2.1.

114 *See* PFD at 44-45.

The stormwater analysis in Attachment 6 to Part III of WMTX's application complies with all applicable regulatory requirements.[115] Extending the stormwater analysis beyond the scope of the analysis included in the application is not required by law or regulation and would not provide additional information that is of any use or reliability in determining compliance with the applicable regulatory requirement. Extending the analysis to some undefined point or points downstream of the permit boundary opens the analysis up to influence by far too many variables – variables unrelated to the discharge from the facility – which renders the analysis virtually useless in answering the regulatory question at issue: Will natural drainage patterns "be significantly altered *as a result of the proposed landfill development*"?[116] To determine whether the proposed landfill development at issue will result in significant alterations to natural drainage patterns, TCEQ requires the applicant to analyze its stormwater discharges at the facility's boundary, where the facility's discharges are at their peak and before the discharges are mitigated by commingling with downstream waters.

Prior determinations of TCEQ and the State Office of Administrative Hearings ("***SOAH***") hold that an analysis of stormwater discharges downstream of the facility's permit boundary is not relevant to any statutory or regulatory requirement applicable to WMTX's application. Specifically, as set forth below and as determined by the ALJ, the Commission has previously ruled that downstream, off-site analyses of stormwater drainage are not part of, nor relevant to, the "no significant alteration" demonstration required by 30 Tex. Admin. Code

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115 *See* Ex. APP-200 at 43:1-10 (Graves).

116 30 TEX. ADMIN. CODE § 330.56(f)(4)(A)(iv) (emphasis added).

§ 330.56(f)(4)(A)(iv).[117] That ruling has subsequently been recognized by SOAH and reaffirmed by the TCEQ Commissioners.

In the ALJs' PFD in the *Blue Flats* case, the ALJs concluded that it may be appropriate to examine the potential off-site impacts to natural drainage patterns "beyond the permit boundary" of a landfill.[118] When the TCEQ Commissioners considered the *Blue Flats* PFD, they specifically rejected the ALJs' Proposed Findings of Fact related to off-site analyses of stormwater drainage "because *Commission rules and precedent require that the determination of significant alteration be made at the permit boundary, not off site.*"[119]

SOAH later revisited the issue of off-site drainage analyses following the Commission's order in the *Blue Flats* case. In his PFD in the *North Texas Municipal Water District* case, the ALJ reviewed the *Blue Flats* order and concluded that, in light of that order, "*calculations and analyses of off-site drainage patterns are wasted motion.*"[120] The ALJ's exclusion of off-site drainage analyses was affirmed by the TCEQ Commissioners when they considered the ALJ's PFD.[121]

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117 *See* PFD at 44.

118 *In the Matter of the Application of Blue Flats Disposal, L.L.C., for Proposed Permit No. MSW-2262*, SOAH Docket No. 582-98-1390, TNRCC Docket No. 98-0415-MSW, Proposal for Decision at 31 (Oct. 2, 2000) [hereinafter *Blue Flats PFD*].

119 *An Order Denying the Application of Blue Flats Disposal, L.L.C., for Permit No. MSW-2262*, TNRCC Docket No. 98-0415-MSW, SOAH Docket No. 582-98-1390, at 8 ("Explanation of Changes to the ALJs' Proposed Findings of Fact and Conclusions of Law") (Jan. 2, 2001) [hereinafter *Blue Flats Order*] (emphasis added).

120 *In re Application of North Texas Municipal Water District for Municipal Solid Waste Permit No. MSW-2294*, SOAH Docket No. 582-02-3386, TCEQ Docket No. 2002-0745-MSW, Proposal for Decision at 28 & n.98 (July 18, 2003) (emphasis added) [hereinafter *North Tex. Mun. Water Dist. PFD*].

121 *An Order Approving the Application of North Texas Municipal Water District for Municipal Solid Waste Permit No. MSW-2294*, TCEQ Docket No. 2002-0745-MSW, SOAH Docket No. 582-02-3386, at 18 (Finding of Fact No. 105), 27 (Conclusion of Law No. 27) (Oct. 20, 2003) [hereinafter *North Tex. Mun. Water Dist. Order*].

TJFA's exceptions appear to suggest that the Commission's *Surface Water Guidelines*, which were developed following the *Blue Flats* decision, somehow represent a departure from the Commission's holding in that case and in the *North Texas Municipal Water District* case that the demonstration of no significant drainage alterations is to be made at the facility's permit boundary, not off-site. First and foremost, it must be recognized that the *Surface Water Guidelines* expressly provide that the agency's guidance "is not intended to be used as rules or policy and does not include all acceptable practices."[122] The agency's guidance was developed to expound on Commission precedent, not to change it (which non-binding guidance could not accomplish in any event). Furthermore, the agency's *Surface Water Guidelines* in no way purport to depart from the Commission's holding that the demonstration of no significant drainage alterations is to be made at the facility's permit boundary, not downstream from the facility. Indeed, the guidelines provide additional support for the conclusion that the point of discharge from the facility to the downstream receiving channel *at the facility's permit boundary* is the critical point for purposes of determining whether a facility's stormwater discharge will significantly alter natural drainage patterns.[123]

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[122] Ex. APP-209 at 2, § 1.1; *see also* 30 TEX. ADMIN. CODE § 330.6 (providing that MSW technical guidelines "are not mandatory" and "shall not be used to extend the scope or increase the stringency" of TCEQ's rules in Chapter 330); Trial Tr. at 1610:23 to 1611:21 (Prompuntagorn).

[123] *See* Ex. APP-209 at 5, § 2.1.3 ("Another important way to show that there is no significant alteration of natural drainage patterns is to demonstrate that the velocity of the flow exiting the site *at the discharge point along the permit boundary* does not cause an increase in erosion. . . . Typically, the postdevelopment geometry of the drainage way *at the permit boundary* . . . should be consistent with the predevelopment condition. Therefore, if the postdevelopment flow rate is equal to or less than the predevelopment flow rate *at the discharge point*, the postdevelopment velocity will also be less. . . . A focus of a storm water management system design for a MSW facility should be to return the storm water flow to its predevelopment condition before it leaves *the permit boundary* . . . . To achieve this goal, . . . allow flow to return to the predevelopment condition *at the permit boundary*.") (emphasis added).

For the foregoing reasons, an analysis of stormwater discharges downstream of the facility's permit boundary is not relevant to any statutory or regulatory requirement applicable to WMTX's application. Accordingly, such an analysis is not required to demonstrate that WMTX's application "complies with all applicable statutory and regulatory requirements."[124]

3. TCEQ's Rules In Chapter 301 Are Inapplicable To The Demonstration Of No Significant Alterations Of Natural Drainage Patterns

In a failed effort to muster some sort of regulatory support for its claim that off-site points indefinitely downstream of a facility's boundary should be analyzed, TJFA cites a regulation in Chapter 301 of TCEQ's rules and claims that this regulation is relevant and applicable because it is referenced (either generally or specifically) in two of TCEQ's MSW rules in Chapter 330.[125] TJFA is grasping at straws, and the straws that it clutches are neither relevant nor applicable to the "no significant alteration" demonstration required by 30 Tex. Admin. Code § 330.56(f)(4)(A)(iv). First, with respect to TJFA's claim that 30 Tex. Admin. Code § 301.34(3) is relevant solely by virtue of being referenced in two Chapter 330 regulations, neither of those two regulations is § 330.56(f) and neither of the two references has anything to do with the demonstration of no significant drainage alterations required by § 330.56(f).

Indeed, the two Chapter 330 rules in question – § 330.53(b)(12)(A) and § 330.55(b)(7) – concern solely the siting of MSW landfills in floodplains. Specifically, § 330.55(b)(7) provides that, if a landfill is sited in a floodplain (which, as set forth below, Mesquite Creek is not), then "[t]he site shall be protected by flooding by suitable levees constructed . . . in accordance with the rules . . . relating to levee improvement districts" in Chapter 301. Thus, in the context of the

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124 30 TEX. ADMIN. CODE §55.210(b).

125 *See* TJFA's Exceptions at 18.

MSW rules in Chapter 330, § 301.34(3) is applicable, if at all, solely to the construction of flood protection levees "designed and constructed to prevent the washout of solid waste from the site."[126] There is no flood protection levee associated with discharge point E at the Mesquite Creek Landfill. Accordingly, § 301.34(3) is inapplicable.

Moreover, by its terms, § 301.34 is applicable only to "plans for levees and other improvements." Section 301.2 defines what constitutes a "levee or other improvement" and specifically excludes from that definition "projects which, when completed, will receive runoff from an area of less than five square miles,"[127] and "levees and landfills located" outside of the 100-year floodplain.[128] Proposed discharge point E at the Mesquite Creek Landfill, when completed, will receive runoff from an area of less than five square miles,[129] and it is located outside of the 100-year floodplain.[130] As to this latter point, while TJFA may dispute whether the central portion of the landfill where Mesquite Creek is located is outside of the 100-year floodplain, there can be no reasonable dispute that discharge point E, located on the far eastern boundary of the proposed facility, is not within the floodplain.[131] Accordingly, for these reasons, in addition to those set forth above, § 301.34(3) is inapplicable.

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126 30 TEX. ADMIN. CODE § 330.55(b)(7)(A).

127 *Id.* § 301.2(3)(D).

128 *Id.* § 301.2(3)(G); *see also* TEX. WATER CODE § 16.236(h) (providing that "any levee or other improvement constructed outside of the 100-year floodway" does not require approval by the Commission); 30 TEX. ADMIN. CODE § 301.2(3)(A) (excluding from the definition of a "levee or other improvement" a levee or other improvement "for which approval by the commission is not required under Texas Water Code, §16.236").

129 *See* Ex. APP-202 at 1819 (Table 3.5.1-1) (providing that discharge point E will receive runoff from a 24-acre (i.e., approximately 0.04 square mile) area in the post-development condition).

130 *See id.* at 159, 182, 998 n.7, 1011 n.9 & 10, 1813-14, 1832.

131 *See id.* at 1832.

4. WMTX's Demonstration Of No Significant Alternations To Natural Drainage Patterns, And The ALJ's Findings Regarding That Demonstration, Are Consistent With The Commission's Ruling In *Blue Flats* And The Agency's *Surface Water Guidelines*

TJFA erroneously contends that WMTX's demonstration that natural drainage patterns will not be significantly altered, and the ALJ's findings regarding that demonstration, are flawed because they purportedly rely "on a decrease in 'peak' discharge rate at the permit boundary as the sole factor for determining that 'natural drainage patterns are not significantly altered' from the landfill."[132] TJFA claims that such alleged reliance is contrary to the Commission's ruling in the *Blue Flats* case.[133] In comparing the facts of this case to those of the *Blue Flats* matter, TJFA misleadingly fails to acknowledge (1) that the application at issue in *Blue Flats* did not even contain calculations of runoff volumes or velocities; and (2) that, as set forth above and as expressly found by the ALJ, WMTX's demonstration that natural drainage patterns will not be significantly altered was based not only on calculations and analyses of peak discharge rates, but also on calculations and analyses of runoff volumes, flow velocities, and the timing of peak runoff conditions.

TJFA fails to note that the ALJs and the Commission in the *Blue Flats* case specifically found that the application at issue in that matter did not include calculations or analyses of existing or post-development runoff volumes.[134] TJFA further fails to note that the *Blue Flats* application also did not contain calculations or analyses of existing or post-development runoff

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132 TJFA's Exceptions at 20.

133 *See id.*

134 *See Blue Flats PFD*, *supra* note 118 at 33 ("The ALJs are also concerned that [the applicant] did not present calculations of runoff volume or velocity before and after development."); *Blue Flats Order*, *supra* note 119, at 5, Finding of Fact No. 40 (finding that the "application does not include any calculations or analyses of existing or post-development runoff volumes to the northwest or northeast.").

velocities.[135] TJFA, however, would appear to be correct that the *Blue Flats* application only discussed peak discharge rates leaving the site, as that appears to be the *only* drainage parameter that the applicant calculated and relied upon.

As proved by the record evidence, the facts of this case are markedly different. There is simply no support for TJFA's repeated misrepresentations that peak discharge rates were the sole factor in WMTX's demonstration, and the ALJ's determination, that natural drainage patterns will not be significantly altered by the proposed expansion of the Mesquite Creek Landfill. It is undisputed that, in addition to peak discharge rates, WMTX's application contains calculations and analyses of runoff volumes, flow velocities, and the timing of peak runoff conditions in the natural, pre-development, and post-development drainage conditions.[136] Thus, unlike the applicant in the *Blue Flats* case, WMTX did not limit its calculations and analyses to peak discharge rates when demonstrating that natural drainage patterns will not be significantly altered as a result of the proposed expansion of the Mesquite Creek Landfill.

As Mr. Graves testified, he considered runoff volumes, velocities, and timing, in addition to peak discharge rates and other factors, in reaching his expert determination that expansion of the landfill, as proposed in WMTX's application, would not significantly alter natural drainage

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135 *See Blue Flats PFD*, *supra* note 118, at 33-34 (finding that the applicant "failed to offer any evidence about runoff velocity"); *Blue Flats Order*, *supra* note 119, at 5, Finding of Fact No. 41 (finding that the "application does not include any calculations or analyses of existing or post-development runoff velocities to the northwest, northeast, or south.").

136 *See* Ex. APP-202 at 1820-21.

patterns.[137] The Executive Director's expert agreed with this determination.[138] The ALJ agreed with this determination.[139] There is no testimony in the record to the contrary.

Furthermore, while WMTX unquestionably analyzed parameters other than discharge rates to demonstrate that natural drainage patterns will not be significantly altered, TJFA's claims in this regard are contrary to TCEQ's *Surface Water Guidelines*. As noted above, that guidance specifically states that one of the "[t]ypical methods" for demonstrating that an increase in stormwater runoff is not "significant" is to design the landfill such that the additional stormwater volume will be released from the landfill at a rate that will not significantly alter natural drainage patterns.[140] As set forth above, WMTX's proposed design for the expanded Mesquite Creek Landfill utilizes this "typical method" for controlling increased stormwater volumes by designing detention ponds to accommodate such volumes, routing stormwater runoff through those detention ponds, attenuating the runoff, and releasing that runoff at the facility boundary at rates – *and velocities* – that are less than those occurring in the natural drainage condition.

D. THE FEMA FLOODPLAIN MAP USED BY WMTX IS RELIABLE AND, PER TCEQ'S RULES, MAY BE RELIED UPON TO DEMONSTRATE THAT THE MESQUITE CREEK LANDFILL IS NOT WITHIN THE 100-YEAR FLOODPLAIN

For purposes of preparing portions of WMTX's application and demonstrating compliance with TCEQ rules that require a determination of areas within the floodplain

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137 *See* Ex. APP-200 at 47:6-11, 48:6-12 (Graves); Trial Tr. at 100:8-14 (Graves).

138 *See* Ex. ED-300 at 21:22-31, 22:19-23 (Prompuntagorn).

139 *See* PFD at 44-45.

140 Ex. APP-209 at 4, § 2.1.2.

associated with a 100-year frequency flood,[141] Mr. Graves relied upon a floodplain map produced by Federal Emergency Management Agency ("***FEMA***") that demonstrates that the Mesquite Creek Landfill, including the proposed expansion area, is not located within a 100-year floodplain.[142] Per TCEQ's regulations and Commission precedent, such reliance was permissible and in compliance with all applicable statutory and regulatory requirements.

TCEQ's rules specifically provide that, to identify whether a site is located within a 100-year floodplain, an applicant can either include a copy of the relevant FEMA map in the application, if a FEMA map is used to demonstrate compliance, "*or* the calculations and maps used where a FEMA map is not available."[143] In this case, the relevant FEMA map was available and, per the rules, was used to demonstrate that the Mesquite Creek Landfill is not located within a 100-year floodplain.[144]

TJFA claims that a FEMA floodplain map cannot be relied upon to determine whether an area is within the floodplain associated with a 100-year frequency flood unless the FEMA map expressly states whether the area is within or outside of the 100-year floodplain.[145] As Mr. Graves explained, FEMA maps only depict the area within the 100-year floodplain; everything outside of that area is not within the floodplain.[146] TJFA's theory would lead to the

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141 *See, e.g.*, 30 TEX. ADMIN. CODE §§ 330.55(b)(7), (b)(7)(C), 330.56(c), (f)(3), (f)(4)(B), (g), 330.301.

142 *See* Trial Tr. at 149:10 to 150:20, 151:13-16, 154:13-25, 177:16-17, 177:24 to 178:6, 331:11 to 334:2 (Graves); Ex. APP-200 at 48:25 to 49:8 (Graves); Ex. APP-202 at 159, 182, 998 n.7, 1011 n.9 & 10, 1813-14; Ex. APP-211; *see also* Trial Tr. at 993:3-9, 995:21 to 996:4, 998:17 to 999:1 (Prompuntagorn).

143 30 TEX. ADMIN. CODE § 330.56(f)(4)(B)(i) (emphasis added).

144 *See* Ex. APP-211.

145 *See* TJFA's Exceptions at 22-26.

146 *See* Trial Tr. at 157:9-14 (Graves).

absurd conclusion that a FEMA map can only be used to confirm that an area is within a 100-year floodplain, because if the map does not depict an area to be within the 100-year floodplain, TJFA concludes that the area has not been studied and that the map is of no use. Accordingly, following TJFA's reasoning, a FEMA map could *never* be used to demonstrate that an area is *not* within a 100-year floodplain. Such a theory is both illogical and directly at odds with TCEQ's rules.[147]

In this case, FEMA has mapped the area around the landfill, including Mesquite Creek.[148] The relevant FEMA map shows the areas that are within the 100-year floodplain, depicts Mesquite Creek where it crosses through the landfill, and affirmatively shows that Mesquite Creek is *not* within the floodplain.[149] The FEMA map provides that the landfill is in "Zone C" – defined as "areas of minimal flooding" outside of the 100-year floodplain.[150] Additionally, the FEMA map also specifies zone designations for areas within the 100-year flood boundary ("Zone A") and "undetermined" areas ("Zone D").[151] The landfill is *not* within either of those two areas.[152] Accordingly, any suggestion that FEMA did not analyze this area is baseless. As the FEMA map at issue demonstrates, FEMA studied the area around the landfill, including the Mesquite Creek crossing, and concluded that the landfill is in an area of "minimal flooding" and not within the 100-year floodplain. The applicable regulatory requirements are satisfied; there is nothing more to prove.

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147 *See* 30 TEX. ADMIN. CODE § 330.56(f)(4)(B)(i).

148 *See* Ex. APP-211.

149 *See id.*

150 *Id.*

151 *Id.*

152 *See id.*

TJFA asserts that the FEMA floodplain map used in this case is similar to the ones relied upon by the applicants in the *Juliff Gardens* and *Tan Terra* cases. The pertinent facts of those cases are demonstrably different than record evidence in this case. In the *Juliff Gardens* case, the ALJ found that the FEMA map at issue specified that the limit of the area studied by FEMA was some 3,000 feet away from the proposed site.[153] There is no such limitation on the FEMA map that WMTX used. Furthermore, the ALJ found that the area of the proposed site in the *Juliff Gardens* case was not marked with the appropriate zone designation on the FEMA map to demonstrate that the area was outside of the floodplain.[154] By contrast, as discussed above, the FEMA map in this case specifies that the Mesquite Creek Landfill is in "Zone C" – an area of "minimal flooding" outside of the 100-year floodplain.[155]

The facts of the *Tan Terra* case are equally distinguishable. In that case, the applicant sought to rely upon a "map index," not a true FEMA floodplain map.[156] That is not the case here; there is no allegation that WMTX relied upon a map index or anything other than a true FEMA floodplain map.

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153 *In the Matter of the Application of Juliff Gardens, L.L.C., for a New Permit to Operate a Type IV Municipal Solid Waste Landfill Facility (Permit No. MSW-2282)*, SOAH Docket No. 582-02-1595, TCEQ Docket No. 2002-0117-MSW, Proposal for Decision at 20 (June 24, 2004).

154 *Id.* at 20-21.

155 Ex. APP-211.

156 *In the Matter of the Application of Tan Terra Environmental Services, Inc., for MSW Permit No. 2305*, SOAH Docket No. 582-05-0868, TCEQ Docket No. 2004-0743-MSW, Proposal for Decision at 40-41 (Jan. 17, 2006); *An Order Regarding the Application of Tan Terra Environmental Services, Inc., for a Permit to Operate a Type I Municipal Solid Waste Facility (Permit No. MSW-2305)*, TCEQ Docket No. 2004-0743-MSW, SOAH Docket No. 582-05-0868 at 14-14 (Explanation of Changes, ¶ 2) (Apr. 20, 2006).

Based upon the facts of this case, the appropriate Commission precedent to reference is the *North Texas Municipal Water District* case.[157] There, both the applicant and the Executive Director relied upon the applicable FEMA floodplain map to demonstrate that the site was not within the 100-year floodplain.[158] In fact, in that proceeding, Mr. Wade Wheatley – then Director of TCEQ's Waste Permits Division – testified that the relevant FEMA map could be used to identify whether a site is located within a 100-year floodplain, per TCEQ's rules, and provided a list of 18 permitting actions over a three-year period where a FEMA map "was the sole source used to establish the 100-year floodplain."[159] Both the ALJ in that case and the Commission agreed that MSW applicants may rely upon FEMA maps to satisfy TCEQ's floodplain requirements and demonstrate that a site is not within the 100-year floodplain.[160]

Furthermore, although a FEMA floodplain map alone is sufficient to demonstrate compliance with the applicable regulatory requirements, in this case the flooding analysis did not end there. Although the site is not located within the 100-year floodplain, Mr. Graves also conducted an analysis demonstrating that the Mesquite Creek Landfill, when constructed as proposed in WMTX's application, will not restrict the flow of the 100-year storm as it passes through the landfill via Mesquite Creek, reduce Mesquite Creek's flood storage capacity, or result in a washout of solid waste from the landfill.[161] Additionally, because the central portion

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157 *See supra* notes 120 and 121.

158 *See North Tex. Mun. Water Dist. PFD*, *supra* note 120, at 49.

159 *Id.*

160 *See id.* at 50-52; *North Tex. Mun. Water Dist. Order*, *supra* note 121, at 21 (Finding of Fact No. 126), 45 (Conclusion of Law No. 29).

161 *See* Trial Tr. at 158:8 to 159:14, 161:10 to 165:9, 169:18-22, 172:13-16 (Graves); Ex. APP-200 at 49:10 to 50:4, 51:11-26 (Graves); Ex. APP-202 at 159, 1813-14, 2108-10; *see also* 30 TEX. ADMIN. CODE §§ 330.55(b)(7)(C), 330.301 (by its terms, this regulation is applicable only if the site is located within the 100-year floodplain).

of the site, where Mesquite Creek flows, is within the flood pool of the downstream Freedom Lake, Mr. Graves also ensured that the landfill would not reduce the storage capacity of the Freedom Lake flood pool; that the perimeter of the disposal areas – both existing and proposed – had sufficient freeboard extending above the flood pool; and that no waste disposal operations were proposed within the flood pool.[162]

Accordingly, WMTX not only met the regulatory requirements for a determination of areas within the floodplain associated with a 100-year frequency flood, but also went beyond the applicable requirements by conducting additional flooding analyses.

E. THE APPLICATION CONTAINS ALL REQUIRED INFORMATION FOR PONDS A AND B

TJFA claims that WMTX's application is missing information regarding existing ponds A and B, and that the allegedly missing information is required by TCEQ's rules. TJFA's claims are false. WMTX's application contains all the information on ponds A and B that is required by rule.

As Mr. Graves testified, and as TJFA recognizes in its exceptions, ponds A and B were in place at the existing facility prior to the work that was undertaken for the pending application; the ponds were not designed by Mr. Graves or his firm, nor were they installed for purposes of the pending application.[163] Furthermore, the application does not propose any changes to these existing ponds.[164]

With respect to pond B, Mr. Graves testified that this feature is not a true stormwater pond; it was not included in his drainage calculations and the application specifically provides

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162 *See* Trial Tr. at 185:1-5, 195:11-14, 200:19 to 207:22 (Graves); Ex. APP-200 at 49:10-23, 50:5 to 51:6, 51:11 to 52:7 (Graves); Ex. APP-202 at 159, 998 n.7, 1011 n.10, 1813-14.

163 *See* Trial Tr. at 135:12 to 136:11 (Graves).

164 *See* Ex. APP-202 at 1843 n.1.

that it is not among the drainage facilities that WMTX will utilize to comply with TCEQ's rules relating to stormwater management.[165] As Mr. Graves explained, "pond" B is "really just a wide ditch."[166] Therefore, design information for this feature was not required to be included in the application.[167]

With respect to pond A, TJFA appears to demand (1) a plan view of the pond, (2) identification of the pond's outlet structure, and (3) a maintenance plan. TCEQ's rules do not require "plan views" of stormwater ponds; however, simple plan views of pond A are shown on multiple figures in the application.[168] With respect to an identification of the pond's outlet structure, here again, TJFA's requests exceed the requirements of TCEQ's rules. However, information regarding the outlet devices and other design details for pond A is included in Appendix 6A-8 in Part III of the application.[169] Additionally, Mr. Graves identified the location of the outlet structure for pond A during the hearing.[170] Finally, a maintenance plan for pond A and all other on-site stormwater ponds is included in Attachment 6 to Part III of the application.[171]

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165 *See* Trial Tr. at 137:7 to 138:1, 143:12-19 (Graves); Ex. APP-202 at 1857 ("It is noted that Pond B along the south side of Unit 1 was not incorporated into the [stormwater pond design] model due to its small size and minimal storage/detention capabilities. The primary function of Pond B is to serve as a sediment trap for higher frequency storms.").

166 Trial Tr. at 137:22-23 (Graves); *see also id.* at 143:17-19 (Graves) (explaining that pond B is essentially a ditch).

167 *See, e.g.*, 30 TEX. ADMIN. CODE §§ 330.55(b)(5)(C) (requiring designs only of "drainage facilities"), 330.56(f)(4)(A)(iii), (v) (requiring designs only for "the necessary collection, drainage, and/or detention facilities").

168 *See, e.g.*, Ex. APP-202 at 1832, 1835; *see also* Trial Tr. at 142:23-25 (Graves).

169 *See* Ex. APP-202 at 1964-65; *see also* Trial Tr. at 145:22 to 146:25 (Graves) (referencing the information on pond A in Appendix 6A-8).

170 *See* Trial Tr. at 144:3 to 145:21 (Graves).

171 *See* Ex. APP-202 at 1829-30 (requiring periodic cleaning of all stormwater ponds and erosion control structures in order to maintain design capacity). Since the primary function of pond B is to serve

F. WMTX'S APPLICATION COMPLIES WITH ALL APPLICABLE GEOTECHNICAL REQUIREMENTS

1. WMTX's Application Demonstrates That The Mesquite Creek Landfill Is Not, And Will Not Be, Located In An Unstable Area, And That Demonstration Has Not Been Challenged

In its exceptions, TJFA claims that the geotechnical engineering portions of WMTX's application (e.g., the slope stability analyses) fail to comply with TCEQ's rules. In support of this claim, TJFA cites a single regulation, 30 Tex. Admin. Code § 330.305.[172] That regulation solely concerns the siting of landfills in "unstable areas," which are areas "susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill's structural components."[173] The requirements of this regulation apply only if the landfill will be sited in an "unstable area."[174] Although separately satisfied in WMTX's application, these requirements are not part of the Geotechnical Report required by TCEQ's rules.[175] The requirements of § 330.305 concern the stability of the in-situ area where the landfill is proposed to be sited, not the stability of the landfill's slopes post-construction of a landfill that is sited in a stable area.[176]

TCEQ's rules specifically prescribe the requirements for the "Geotechnical Report" that is to be included as part of the "Geology Report" in Attachment 4 to Part III of a MSW permit

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as a sediment trap for higher frequency storms, as noted above, this maintenance plan will apply to pond B as well.

172 *See* TJFA's Exceptions at 29.

173 30 TEX. ADMIN. CODE § 330.305.

174 *Id.*

175 *See id.* § 330.56(d)(5)(B) (prescribing requirements of geotechnical report).

176 *See, e.g.*, Trial Tr. at 1052:4-22 (Prompuntagorn) (testifying that § 330.305 does not concern "slope stability").

application.[177] By rule, the Geotechnical Report is required to include only the information prescribed by 30 Tex. Admin. Code § 330.56(d)(5)(B). The unstable area requirements of § 330.305 are not among the requirements prescribed for the Geotechnical Report. Rather, per 30 Tex. Admin. Code § 330.53(b)(10)(D), the requirements of § 330.305 are to be addressed as part of the "general geology and soils statement" in Part II of the application.

Per the foregoing regulatory requirements, Part II of WMTX's application includes a demonstration and certification that the Mesquite Creek Landfill is not, and will not be, located in an unstable area.[178] As both Mr. Graves and Ms. Meaux testified, the unstable area demonstration was prepared by Mr. Graves and reviewed by Ms. Meaux.[179] Mr. Graves's testimony was unequivocal: "[T]he Mesquite Creek Landfill and its proposed expansion are not, and will not be, located in an unstable area."[180] Ms. Meaux agreed with that determination.[181] There was no challenge to the testimony of Mr. Graves and Ms. Meaux regarding unstable areas, or to the unstable area demonstration and certification in Part II of WMTX's application. Accordingly, the requirements of § 330.305 have been satisfied.

2. The Slope Stability Analyses In WMTX's Application Used Appropriate Minimum Factors Of Safety

In its exceptions, TJFA claims that there is a TCEQ "policy" that limits minimum factors of safety for slope stability analyses to 1.25. There is not. No formal TCEQ policy was

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177 *Id.* § 330.56(d)(5)(B).

178 *See* Ex. APP-202 at 155-56, 302; *see also id.* at 1026.

179 *See* Ex. APP-200 at 26:17-30, 28:1-12 (Graves); Ex. APP-400 at 18:22 to 19:9 (Meaux).

180 Ex. APP-200 at 28:4-6 (Graves).

181 *See* Ex. APP-400 at 19:7-9 (Meaux).

presented in this case regarding minimum factors of safety.[182] Rather, as discussed in the ALJ's PFD, the record testimony is that, while TCEQ has no formal policy, the agency generally accepts 1.25 as a minimum factor of safety for most slope stability analyses, and 1.0 as a minimum factor of safety when large displacement strengths are used.[183] The slope stability analyses in WMTX's application adhere to this general policy.[184]

Given that there is no formal agency policy regarding minimum factors of safety, it is axiomatic that there is no rule prescribing minimum factors of safety, much less one specifying 1.25 as a minimum factor of safety for all analyses. Indeed, there are no prescribed regulatory standards for slope stability analyses; TCEQ's rules – and the agency itself – rely heavily on the engineering expertise and judgment of the geotechnical engineer.[185] Accordingly, WMTX retained one of the foremost experts in the field, Dr. Gross, to conduct the requisite engineering tests and slope stability analyses and prepare the geotechnical portions of WMTX's application.[186] As discussed in WMTX's Closing Argument, Dr. Gross' credentials are impeccable.[187]

The work that Dr. Gross conducted and the conclusions that she reached are presented in WMTX's application and discussed in her prefiled testimony.[188] Based on her analyses of the

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182 *See* 1 TEX. ADMIN. CODE § 155.53 (specifying requirements for an ALJ's consideration of policy not incorporated in an agency's rules).

183 *See* PFD at 53.

184 *See* Ex. APP-202 at 1045-46, 1622.

185 *See* Trial Tr. at 1011:3-18, 1019:1-12, 1052:23 to 1053:19 (Prompuntagorn); *id.* at 756:16-18, 758:25 to 759:11 (Gross).

186 *See* Ex. APP-500 at 6:17 to 7:3 (Gross) (discussing scope of work with respect to WMTX's application).

187 *See* WMTX's Closing Argument at 4-5, 28.

188 *See* Ex. APP-202 at 1040-47 (Geotechnical Report), 1620-1725 (Slope Stability Analysis and Foundation Settlement Analysis); Ex. APP-500 (prefiled testimony of Dr. Gross).

geotechnical properties of the soils and subsurface strata at the Mesquite Creek Landfill, and the proposed construction of the landfill, Dr. Gross determined that the slopes of the landfill are and will be stable.[189] As the ALJ determined, Dr. Gross' findings have not been challenged by any credible expert testimony or evidence in this case.[190] Furthermore, Protestants' cross-examination of Dr. Gross at the hearing failed to adduce any testimony discrediting Dr. Gross or her work in this matter, or otherwise to raise any reasonable question regarding the stability of the slopes existing at, and proposed for, the Mesquite Creek Landfill.

With respect to the use of minimum factors of safety below 1.25 when large displacement strengths are used in the analysis, Dr. Gross explained that such an analysis is "a more sophisticated way of evaluating slope stability" – an advanced approach to evaluating the stability of landfills that has only recently been developed.[191] Dr. Gross is at the forefront of this geotechnical engineering advancement.[192]

As explained in WMTX's application, and as explained by Dr. Gross at the hearing, this advanced analysis of large displacement strengths was conducted by Dr. Gross as a supplement to the more traditional slope stability analyses that she performed (e.g., those that use a minimum factor of safety of 1.25 or greater) "[t]o provide additional confidence in the reliability of the design" of the landfill.[193] As Dr. Gross explained, the large displacement strength scenario is so

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189 *See* PFD at 52-53, 54.

190 *See id.* at 54-55.

191 Trial Tr. at 743:1-20 (Gross); *see also id.* at 767:20 to 768:23 (Gross) (testifying that the use of large displacement strengths, and a minimum factor of safety of less than 1.25 when performing such analyses, is "the state of practice for geotechnical engineers" who "perform specialized geotechnical work").

192 *See id.* at 743:1-20 (Gross).

193 Ex. APP-202 at 1622; *see also* Trial Tr. at 751:2-4 (Gross) ("It's basically to make your design more reliable by using kind of a large displacement strength in your slope stability analysis."); *id.* at

"very, very conservative" that it "will never exist" in reality, but nevertheless is analyzed "to increase the reliability of the design."[194] Thus, contrary to TJFA's assertions, Dr. Gross's use of large displacement strengths, and minimum factors of safety below 1.25 when performing such analyses, does not raise questions regarding the reliability of the landfill's design. Rather, these large displacement analyses eliminate any question that the design of the Mesquite Creek Landfill is safe and reliable.

G. THERE IS NO APPLICABLE STATUTORY OR REGULATORY REQUIREMENT THAT REQUIRES INCLUSION OF TPWD'S RECOMMENDATIONS IN THE APPLICATION

The ALJ's PFD discusses an October 12, 2005 letter from the Texas Parks and Wildlife Department ("***TPWD***") concerning recommendations from TPWD regarding measures that may be taken to avoid potential impacts to a "rare bird species," the Mountain Plover, and other birds, riparian ecosystems, and native wildlife species that may be present in the vicinity of the Mesquite Creek Landfill.[195] In the PFD, the ALJ finds that one of the four TPWD recommendations should be included in the proposed Site Operating Plan ("***SOP***") in WMTX's application on grounds that (1) "[a] landfill may not be used or operated in a manner that endangers the environment" and (2) "the Commission must solicit comments from, and consider information provided by," TPWD.[196] In its exceptions, TJFA claims that the remaining three

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775:11-25 (Gross) (testifying that analyzing large displacement strengths "increases the reliability of the design").

194 Trial Tr. at 751:21, 775:11-25 (Gross); *see also id.* at 751:8-11 (Gross) ("These strengths I'm using are so unrealistic."); *id.* at 767:23-25 (Gross) ("We looked at large displacement strengths. We looked at conditions that won't exist . . . ."); *id.* at 781:1-17 (Gross) ("I've never seen values this low in the lab.").

195 *See* PFD at 61-66; Ex. APP-202 at 582-83.

196 PFD at 61; *see also id.* at 66.

TPWD recommendations should also be included in the facility's SOP simply because "the standard is to protect the environment."[197]

WMTX did not – and does not now – take exception to the ALJ's proposal to include a provision in the facility's SOP requiring training of "key site personnel about Mountain Plovers so that adverse impacts to the species may be avoided."[198] However, for the reasons set forth in the ALJ's PFD, and those set forth below, TPWD's other recommendations should not be included in the SOP.

The ALJ's PFD and WMTX's Response to Closing Arguments set forth the reasons why inclusion of the remaining TPWD recommendations is neither practical nor necessary. In additional to being impractical and superfluous, there is no legal requirement or necessity requiring inclusion of the TPWD recommendations in WMTX's application. The recommendations are not necessary for the application to meet an applicable statutory or regulatory requirement, which is the standard in this proceeding.[199] There is no applicable statutory or regulatory requirement that requires inclusion of TPWD's recommendations in the application. With respect to species protection, the only requirements applicable to WMTX's application concern the protection of state- or federally-listed endangered or threatened species.[200]

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197 TJFA's Exceptions at 31.

198 PFD at 66.

199 *See* Trial Tr. at 1044:6-15, 1066:5-24 (Prompuntagorn) (confirming that there is no TCEQ rule that requires TPWD's recommendations to be included in WMTX's application); 30 TEX. ADMIN. CODE § 55.210(b) (providing that, in a direct referral case, the applicant has the burden of proof with respect to whether its application "complies with all applicable statutory and regulatory requirements").

200 *See* 30 TEX. ADMIN CODE §§ 330.2(41), 330.11(i), 330.53(b)(13), 330.129; *see also* Ex. APP-202 at 560 (Aug. 18, 2005, U.S. Fish and Wildlife Service letter noting that "candidate" species – "those that are being considered for possible addition to the threatened and endangered species list" – "have no legal

In this case, both the United States Fish and Wildlife Service and WMTX's expert biologist, Ms. Castille, concluded that the proposed landfill expansion area does not contain habitat conducive to the presence of any threatened or endangered species.[201] Additionally, in a letter dated December 6, 2005 (i.e., in a letter *subsequent* to TPWD's October 12, 2005 letter), TPWD responded to Ms. Castille's rare resources review request and species assessment as follows: "TPWD does not anticipate significant adverse impacts to rare species from project activities."[202]

Furthermore, the standard that TJFA seeks to impose is unworkable. Neither TCEQ, nor TPWD, nor the federal government requires such sweeping protection. To avoid such an unworkable standard, the state and the federal government have limited an applicant's regulatory and statutory obligation to protection of endangered and threatened species.

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protection"); 31 TEX. ADMIN. CODE §§ 65.171, 65.175, 69.1, 69.8 (TPWD regulations regarding protection of endangered and threatened species); TEX. PARKS & WILDLIFE CODE §§ 68.002, 68.003, 68.006, 68.015, 68.019 (state statutory provisions for protection of endangered species); Trial Tr. at 1044:6-15, 1066:5-24 (Prompuntagorn) (confirming that there is no TCEQ rule that requires TPWD's recommendations to be included in WMTX's application).

[201] *See* Ex. APP-202 at 167 ("no federal or state-listed endangered or threatened species or their critical habitats were found on or in the vicinity of the proposed expansion area"), 559 ("The proposed project site is not located within designated critical habitat of any federally listed threatened or endangered species."), 640-44 (noting that "[n]o critical habitat areas were identified for any threatened, endangered, or rare species" in the vicinity of the landfill), 646 (concluding that the habitat on the landfill property, including the expansion area, "would not support threatened, endangered or rare species and is not suitable for the critical habitat of such species"); *see also* Ex. APP-300 at 22:10-16 (Castille) (concluding that the expansion and operation of the Mesquite Creek Landfill, as proposed in the application, will not result in the destruction or adverse modification of critical habitat of threatened or endangered species, or cause or contribute to the taking of any threatened or endangered species).

[202] Ex. APP-303 at 1; *see also id.* at 3 (noting that the Mountain Plover is nether a federally- nor state-listed endangered or threatened species); APP-300 at 20:13 to 21:18 (Castille).

H. THE ALJ'S PROPOSAL REGARDING THE FACILITY SITE ENTRANCE IS SOUND

In her PFD, the ALJ recommended an addition to the draft permit requiring WMTX to submit a slightly revised site entrance design prior to the entrance's construction that demonstrates compliance with the line-of-sight standards of the American Association of State and Highway Transportation Officials ("***AASHTO***").[203] A special permit condition of this sort was recommended by the Office of Public Interest Counsel in its closing arguments and was, and remains, unopposed by WMTX. Contrary to TJFA's assertions, such a special condition can be added to the draft permit without amending WMTX's application.[204]

In the body of Texas's statutes and regulations governing MSW facilities, there is no statutory or regulatory requirement that requires compliance with AASHTO standards. With respect to the site entrance, TCEQ's rules require only that "[a] *generalized design* of all site entrance roads from public access roads" be depicted on a plan or figure in the application.[205] The requisite "generalized design" of WMTX's proposed site entrance has been provided in the

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203 *See* PFD at 69.

204 *See* 30 TEX. ADMIN. CODE § 50.117(a) ("The commission may grant or deny an application in whole or in part, . . . amend or modify a permit or order, or take any other appropriate action."); *id.* § 50.117(c)(3) ("The commission may set a reasonable compliance deadline in its order in which to . . . conform to the permit requirements, including any new or additional conditions imposed by the commission . . . .").

205 *Id.* at § 330.56(a)(2) (emphasis added). This rule also concerns "designs of proposed public roadway improvements;" however, the site entrance, which is proposed to be located on property owned by WMTX, is not a "public roadway." *Cf. id.* § 330.2(107) (defining a "public highway" as one that is "not privately owned or controlled"). Additionally, TCEQ's MSW rules regarding transportation concern only the "availability and adequacy" of roadways that will be utilized by vehicular traffic to access the facility. *Id.* § 330.53(b)(9)(A)-(C).

application, as required.[206] Accordingly, the application complies with the applicable regulatory requirement.

Nevertheless, WMTX is committed to providing safe entry and exit to and from its facility, and constructing a site entrance in compliance with AASHTO standards. Mr. Graves testified that the proposed site entrance, as shown in the *generalized* design in the application, appears "pretty close" to meeting AASHTO standards, and definitively concluded that the *final* design of the proposed site entrance would meet AASHTO standards.[207] As Mr. Graves explained, the actual location of the site entrance – down to the foot – will be determined at the time of construction in a "detailed" or "construction level" design.[208] Additionally, TCEQ's rules require submittal of an "as-built set of construction plans and specifications" following construction of the site entrance and other facility features.[209] That TCEQ's rules require only a "generalized design" of the site entrance to be included in the application, and an "as-built set of construction plans and specifications" following construction of the site entrance, indicates that

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206 *See* Ex. APP-202 at 1001 (Drawing 1-4, Landfill Entrance Plan); *see also* Trial Tr. at 258:12-20 (Graves). There was some discussion during the evidentiary hearing regarding whether the site entrance plan in the application was a "conceptual" design, a "construction level" design, a "detailed" design, or an "as-built" design. Trial Tr. at 261:18 to 262:10, 334:9 to 336:16 (Graves). Mr. Graves testified that the plan in the application was a "permit level" design – "an intermediate stage between the one extreme of conceptual design and another extreme of detailed design." *Id.* at 335:5-14 (Graves). While TCEQ's rules do not define what constitutes a "generalized design" as that term is used in 30 Tex. Admin. Code § 330.56(a)(2), it is reasonable to conclude from wording of the regulation that it is something less than a "detailed" design. *Cf.* 30 TEX. ADMIN. CODE § 330.58 (requiring an "as-built set of construction plans and specifications" to be submitted to TCEQ after completion of construction of the facility).

207 Trial Tr. at 1173:17-20, 1174:13-21, 1176:18-23 (Graves) (testifying that the proposed site entrance, by final design, would "absolutely" meet AASHTO standards); *see also id.* at 1163:4-11, 1164:10-13 (Graves) (explaining that, with a "nudge . . . a little bit in either direction" the existing, analyzed entrance would be acceptable under AASHTO standards, and that the proposed site entrance is a "nudge" away from the existing, analyzed entrance); *id.* at 1171:23 to 1173:16 (Graves) (testifying that the existing, analyzed entrance would need to be moved approximately 30 meters to the north to comply with AASHTO standards).

208 *Id.* at 1165:21 to 1166:3, 1174:13-21 (Graves); *see also id.* at 334:22 to 335:4 (Graves).

209 30 TEX. ADMIN. CODE § 330.58; *see also* Trial Tr. at 335:15 to 336:12, 337:11-20 (Graves).

the agency and its rules contemplate that slight changes to the location of the site entrance may be made as the generalized design in the application is finalized and constructed.[210]

I. THE ALJ HAS PROPOSED A JUST AND REASONABLE APPORTIONMENT OF TRANSCRIPT COSTS

TJFA takes exception to the ALJ's proposed apportionment of transcript costs. Notably, in reaching her recommendation regarding apportionment, the ALJ applied the Commission's rule governing the allocation of reporting and transcription costs.[211] TJFA makes no attempt to do the same. TJFA's proposed approach to apportionment wholly ignores the criteria set forth in the applicable rule and would require the applicant to pay all costs in every case. If that were the standard, then the Commission – like TJFA – would have no use for a rule that requires a "just and reasonable assessment" of costs.[212]

J. IT IS IMMATERIAL WHETHER WMTX'S APPLICATION IS CONSIDERED A LATERAL EXPANSION OR A NEW UNIT, THE PROPOSED CONSTRUCTION WOULD NOT BE PROHIBITED BY FEDERAL LAW IN ANY EVENT

Relegated to the end of TJFA's exceptions is a claim that WMTX's proposed expansion is an application for a new landfill unit, not a lateral expansion of an existing unit. TJFA claims that such a distinction is material because "the federal Ford Aviation Act" purportedly prohibits the "siting [of] new landfill units within six miles of public airports."[213] TJFA misreads the federal law.

The federal law in question, 49 U.S.C. § 44718(d), applies to MSW landfills ("***MSWLFs***") and only to new MSWLFs; it does not apply to the expansion of an existing

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210 *See id.* at 337:2-24 (Graves).

211 *See* PFD at 69-70.

212 30 TEX. ADMIN. CODE § 80.23(d)(1)(G).

213 TJFA's Exceptions at 36.

MSWLF, or to the individual units within a facility.[214] As defined by the Federal Aviation Administration, a MSWLF may include multiple disposal units.[215] Additionally, an existing MSWLF is one that was in existence and receiving waste on or before April 5, 2000.[216] Accordingly, the law has no application to an existing MSWLF that may be expanded to include additional disposal units, regardless whether such expansion is termed a "lateral expansion" or the addition of a new disposal unit to an existing, multi-unit MSWLF. The law allows expansion of the entire existing facility; it is not concerned with whether an individual disposal unit is being expanded or a new one is being added at an existing MSWLF.[217]

Furthermore, contrary to TJFA's reading of the law, § 44718(d) does not prescribe an absolute prohibition on the siting of new landfills within six miles of an airport. Rather, a *new* MSWLF may be sited in such proximity to a public-use airport if the applicant obtains approval from the Federal Aviation Administration ("***FAA***").[218] Similarly, TCEQ's newly revised MSW

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214 *See* 49 U.S.C. § 44718(d)(1); 40 C.F.R. § 258.10 (note referencing FAA Advisory Circular 150/5200–34); U.S. Dep't of Transp., Fed. Aviation Admin., Advisory Circular, Construction or Establishment of Landfills Near Public Airports, AC No. 150/5200-34A at 3, § 7 (Jan. 26, 2006) [hereinafter FAA Advisory Circular No. 150/5200-34A], *available at* http://www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/media/150-5200-34A/150_5200_34a.pdf ("Section 44718(d), as amended, applies only to a new MSWLF. *It does not apply to the expansion or modification of an existing MSWLF . . . .*") (emphasis added).

215 *See* FAA Advisory Circular No. 150/5200-34A, App. 1.

216 *See id.*

217 *See id.* at 3, § 8 ("The limitations of § 44718(d), as amended, only apply to a new MSWLF (constructed or established after April 5, 2000). The statutory limitations are not applicable where construction or establishment of a MSWLF began on or before April 5, 2000, or to an existing MSWLF (received putrescible waste on or before April 5, 2000). *Further, an existing MSWLF that is expanded or modified after April 5, 2000, would not be held to the limitations of § 44718(d), as amended.*") (emphasis added); *see also id.* at 3, § 7 ("Section 44718(d), as amended, applies only to a new MSWLF. *It does not apply to the expansion or modification of an existing MSWLF . . . .*") (emphasis added).

218 *See* 9 U.S.C. § 44718(d)(1).

rules, which were, in part, revised to account for § 44718(d),[219] do not prohibit the siting of facilities in proximity to airports, and likewise do not treat "lateral expansions" any different than "new municipal solid waste landfill units."[220] In this case, WMTX contacted the FAA and informed them of the instant application.[221] The FAA conducted an aeronautical study of the proposed expansion and issued a determination that the expansion would not pose a hazard to aircraft.[222]

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219 *See* 31 TEX. REG. 2502, 2518 (Mar. 24, 2006) (providing that TCEQ's rules were revised "to incorporate new federal requirements related to small general service airports"); *see also id.* at 2525 (same).

220 30 TEX. ADMIN. CODE § 330.545(b) (2008) ("Owners or operators proposing to site new municipal solid waste landfill units and lateral expansions located within a six-mile radius of any small general service airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration.").

221 *See* Ex. APP-202 at 148.

222 *See id.* at 148, 255-284.

III.
CONCLUSION

For the foregoing reasons, TJFA's exceptions to the ALJ's PFD are not supportable and provide no basis for amending the PFD or the ALJ's Proposed Order. Accordingly, Applicant WMTX respectfully requests that the ALJ's Proposed Order be modified as proposed in WMTX's Brief in Response to the ALJ's PFD and issued by the Commission with those modifications.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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