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State Office of Administrative Hearings

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
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CHIEF CLERKS OFFICE

Shelia Bailey Taylor
Chief Administrative Law Judge

March 19, 2007

Derek Seal
General Counsel
Texas Commission on Environmental Quality
PO Box 13087
Austin Texas 78711-3087

Re: SOAH Docket No. 582-06-2770; TCEQ Docket No. 2006-0199-MWD; In Re: Application of the City of Weston for Domestic Wastewater Permit No. WQ0014602001

Dear Mr. Seal:

The above-referenced matter will be considered by the Texas Commission on Environmental Quality on a date and time to be determined by the Chief Clerk's Office in Room 201S of Building E, 12118 N. Interstate 35, Austin, Texas.

Enclosed are copies of the Proposal for Decision and Order that have been recommended to the Commission for approval. Any party may file exceptions or briefs by filing the original documents with the Chief Clerk of the Texas Commission on Environmental Quality no later than April 9, 2007. Any replies to exceptions or briefs must be filed in the same manner no later than April 19, 2007.

This matter has been designated **TCEQ Docket No. 2006-0199-MWD; SOAH Docket No. 582-06-2770**. All documents to be filed must clearly reference these assigned docket numbers. Copies of all exceptions, briefs and replies must be served promptly on the State Office of Administrative Hearings and all parties. Certification of service to the above parties and an **original and eleven copies** shall be furnished to the Chief Clerk of the Commission. Failure to provide copies may be grounds for withholding consideration of the pleadings.

Sincerely,

Sarah G. Ramos
Administrative Law Judge

SGR/ed
Enclosures
cc: Mailing List

STATE OFFICE OF ADMINISTRATIVE HEARINGS

WILLIAM P. CLEMENTS BUILDING, Jr.
300 West Fifteenth Street
Austin, Texas 78701
Phone (512) 475-4993
Facsimile (512) 475-4994

SERVICE LIST

AGENCY: Environmental Quality, Texas Commission on (TCEQ)

STYLE/CASE: CITY OF WESTON

SOAH DOCKET NUMBER: 582-06-2770

REFERRING AGENCY CASE: 2006-0199-MWD

STATE OFFICE OF ADMINISTRATIVE HEARINGS	ADMINISTRATIVE LAW JUDGE ALJ SARAH G. RAMOS
REPRESENTATIVE / ADDRESS	**PARTIES**
ANGELA M STEPHERSON LAW OFFICE OF CLAY E CRAWFORD 3100 MCKINNON STREET, 950 DALLAS, TX 75201 (214) 981-9090 (PH) (214) 981-9071 (FAX)	CITY OF WESTON
EMILY COLLINS ATTORNEY TEXAS COMMISSION ON ENVIRONMENTAL QUALITY OFFICE OF PUBLIC INTEREST COUNSEL MC-175 P.O. BOX 13087 AUSTIN, TX 78711-3087 (512) 239-6823 (PH) (512) 239-6377 (FAX)	TCEQ PUBLIC INTEREST COUNSEL
SCOTT RAMSEY SHOEMAKER STAFF ATTORNEY TEXAS COMMISSION ON ENVIRONMENTAL QUALITY MC-173 P.O. BOX 13087 AUSTIN, TX 78711-3087 (512) 239-2679 (PH) (512) 239-0606 (FAX)	TCEQ EXECUTIVE DIRECTOR
EDWARD A TOWN 7997 QUEENS WAY CELINA, TX 75009 (972) 837-2544 (PH) (972) 837-2545 (FAX) TOWNGUNN@MSN.COM	EDWARD A TOWN

MIKE & ELEANOR MCKEE
5065 CR 170
CELINA, TX 75009

MCKEE@MIKEMCKEE.COM

MIKE & ELEANOR MCKEE

LAWRENCE & NINA RINGLEY
313 N. BENGE ST
MC KINNEY, TX 75069
(972) 562-6111 (PH)
LHR@RINGLEY.COM

JOHN & IRENE DOWELL
LAWRENCE & NINA RINGLEY

THOMAS & SUSIE CROSSLAND
7006 WELLINGTON POINT
MC KINNEY, TX 75070
(972) 540-6436 (PH)
(972) 658-8765 (CELL)

THOMAS & SUSIE CROSSLAND

---

xc: Docket Clerk, State Office of Administrative Hearings

SOAH DOCKET NO. 582-06-2770
TCEQ DOCKET NO. 2006-0199-MWD

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2007 MAR 19 PM 1:36
CHIEF CLERKS OFFICE

APPLICATION OF THE CITY OF WESTON	§	BEFORE THE STATE OFFICE
	§	OF
FOR DOMESTIC WASTEWATER PERMIT NO. WQ0014602001	§	ADMINISTRATIVE HEARINGS

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PROPOSED FINAL ORDER

SOAH DOCKET NO. 582-06-2770
TCEQ DOCKET NO. 2006-0199-MWD

APPLICATION OF THE CITY OF WESTON	§	BEFORE THE STATE OFFICE
	§	
	§	OF
FOR DOMESTIC WASTEWATER PERMIT NO. WQ0014602001	§	
	§	ADMINISTRATIVE HEARINGS

I. INTRODUCTION

The City of Weston (Applicant) filed its domestic wastewater permit application with the Texas Commission on Environmental Quality (TCEQ or Commission) in February 2005. As stated in the application, Applicant seeks a permit for a new wastewater treatment facility to be located at the intersection of Honey Creek and Farm-to-Market Road (FM) 170 in Collin County, Texas, which lies approximately 1.6 miles east of the intersection of FM 2478 and FM 170.[1]

Finding the evidence insufficient to prove that the proposed facility will be adequately protected against flooding and that effluent irrigation will not seep into the shallow water table and the spring-fed ponds in the area, the Administrative Law Judge (ALJ) recommends that the permit be denied.

A. Procedural History

The Executive Director (ED) declared the application administratively complete on March 31, 2005,[2] and subsequently issued a draft permit. The Commission issued an interim order on June 20, 2006,[3] referring the application to the State Office of Administrative Hearings (SOAH) for a contested case hearing on the issues of whether:

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[1] App. Ex. 15.

[2] App. Ex. 1.

[3] App. Ex. 9.

1. the City has demonstrated sufficient need for the permit;

2. the proposed facility is located in the 100-year floodplain, and if so, whether the draft permit contains adequate provisions to protect the facility from inundation by such a flood event;

3. the treated wastewater disposed of by irrigation will seep into the shallow water table and the spring-fed ponds in the area, including during periods of heavy rain, freezing weather and ice storms;

4. the amount of treated wastewater disposed of by irrigation will saturate the soil to create a health hazard, including during periods of heavy rain, freezing weather, and ice storms; and

5. the draft permit contains adequate provisions to prevent nuisance odors from the facility.

The preliminary hearing was held September 13, 2006, at the Collin County Courthouse, 210 South McDonald Street, McKinney, Texas, and the hearing on the merits was held January 10-12, 2007, at the same location. The ED did not participate in the hearing. The following parties were named or recognized at the preliminary hearing and participated in the hearing on the merits:

Party	**Represented by:**
Applicant	Angela Stepherson, attorney, and Patti Harrington, Mayor
Lawrence H. and Nina Dowell Ringley, John and Irene Dowell	Mr. and Ms. Ringley[4]
Thomas B. and Susie D. Crossland, Sr.	Mr. Crossland
Mike and Eleanor S. McKee	Mr. and Ms. McKee
Edward A. Town	Mr. Town
Office of Public Interest Counsel (OPIC)	Emily Collins, attorney

[4] Ms. Ringley is the daughter of Mr. and Ms. Dowell.

Notice and jurisdiction were not contested and are discussed only in the Findings of Fact and Conclusions of Law. The Commission set the maximum duration of the hearing process as six months from the first day of the preliminary hearing to the date of issuance of the proposal for decision (PFD). The preliminary hearing was held on September 13, 2006, which would have made the PFD due on March 13, 2007, but the parties agreed to extend the time to March 19, 2007, so they could have a longer briefing schedule. The parties filed closing briefs on February 2, 2007, and reply briefs on February 9, 2007, and the record closed on the latter date.

B. General Description of Proposed Facility Use

Applicant requested authorization to dispose of a daily average flow not to exceed 300,000 gallons per day (gal/day) in the interim phase and 600,000 gal/day in the final phase of construction. The draft permit is based on the flow amount Applicant requested in the interim phase but limits daily average flow in the final phase to 350,000 gal/day. The treated domestic wastewater would be disposed of by surface irrigation over 118 acres for four hours a day, six days a week.[5] The disposal area will be north of the proposed plant on land that will be used as a park or a golf course.[6] The draft permit restricts effluent application rates to 2.85 acre-feet per year (af/yr) per irrigated acre in the interim phase and 3.32 af/yr per irrigated acre in the final phase.[7] Even though the disposal acreage is within the drainage basin of Lavon Lake in Segment No. 0821 of the Trinity River Basin,[8] the draft permit prohibits discharge into waters of the state. Applicant intends to use Bermuda grass as the cover crop upon which the treated effluent will be applied.

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[5] App. Ex. 17 (Technical Summary and Executive Director's Preliminary Decision); App. Ex. 16, Domestic Worksheet 3.1 – Land Disposal of Effluent, p. 15 of 30.

[6] App. Ex. 26, p. 8.

[7] App. Ex. 16, p. 23.

[8] App. Ex. 16.

Before effluent is applied, the daily effluent concentrations must be treated to a level of 5 milligrams per liter (mg/l) five-day carbonaceous biochemical oxygen demand, 5 mg/l total suspended solids, 2 mg/l ammonia nitrogen, and 1 mg/l total phosphorus. The pH must not be less than 6 standard units nor greater than 9 standard units. The effluent must be chlorinated in a chlorine contact chamber to a residual of 1 mg/l with a minimum detention time of 20 minutes.[9]

II. APPLICABLE LAW

The Texas Water Code provides, in pertinent part:

> It is the policy of this state and the purpose of this subchapter to maintain the quality of water in the state consistent with the public health and enjoyment, . . . and the operation of existing industries, taking into consideration the economic development of the state; to encourage and promote the development and use of regional and areawide waste collection, treatment, and disposal systems to serve the waste disposal needs of the citizens of the state; and to require the use of all reasonable methods to implement this policy.[10]

The Commission's rules on Domestic Water Effluent Limitation and Plant Siting, 30 TAC Ch. 309, were adopted to:

- condition issuance of a permit on selection of a site that minimizes possible contamination of ground and surface waters;
- define the characteristics that make an area unsuitable or inappropriate for a wastewater treatment facility;
- minimize the possibility of exposing the public to nuisance conditions; and
- prohibit issuance of a permit for a facility to be located in an area determined to be unsuitable or inappropriate, unless the design, construction, and operational features of the facility will mitigate the unsuitable site characteristics.[11]

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[9] *Id.* at 2; App. Ex. 19, p. 5, ED's Response to Comments.

[10] TEX. WATER CODE ANN. (Code) § 26.003.

[11] 30 TEX. ADMIN. CODE (TAC) § 309.10(b).

The Commission has also adopted rules specifying the Design Criteria for Sewerage Systems, 30 TAC Ch. 317. Those rules set minimum guidelines and design criteria for domestic sewage collection, treatment, or disposal systems, pursuant to existing state statutes.[12] Other pertinent rules are discussed in the following sections.

III. HAS THE CITY DEMONSTRATED SUFFICIENT NEED FOR THE APPLICATION?

A. Background

On November 17, 2004, Scott Norris, a partner in Land Advisors, Ltd., notified Applicant's mayor, Patti Harrington, that the partnership had purchased 1,290 acres of land in an area adjacent to Applicant's southwest city limits and intended to develop 6,000 or more residential and some non-residential units. Mr. Norris offered to negotiate with the city to assume a portion of the financial responsibility for constructing sewer collection lines and a package wastewater treatment plant for the development.[13]

Applicant subsequently entered into a development agreement with partnerships of which Mr. Norris is a partner, Honey Creek Partners, L.P., and Westin Land Ltd. (the developers). The agreement was based on the developers' intent to develop the property as the Parks of Honey Creek, and Applicant's interest in developing a wastewater collection and treatment system. The developers agreed to finance a system, subject to subsequent issuance of bonds to service the debt.[14] The wastewater facilities were to be located off site from the development,[15] "approximately 1.6 miles

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[12] 30 TAC § 317.1.

[13] App. Ex. 10.

[14] App. Ex. 13, p. 4.

[15] *Id.*, p. 5.

east of the intersection of FM 2478 and FM 170 at the intersection of FM 170 and Honey Creek."[16] That intersection is about three miles from downtown Weston.

Under the terms of the agreement between the developers and Applicant, Applicant will have capacity sufficient to serve a maximum of 375 single family residential lots that are not within the development, but all remaining capacity is to be allocated to the development. The agreement further recites Applicant's and the developers' understanding that it will be necessary to obtain wastewater treatment service from the North Texas Municipal Water District (NTMWD) in order to meet development's ultimate needs.[17]

Applicant also has received letters from other developers requesting or inquiring about wastewater services.[18]

B. Applicable Statute

The Code allows the Commission to "deny or alter the terms and conditions of the proposed permit . . . based on consideration of need, including expected volume and quality of the influent and the availability of existing or proposed areawide or regional waste collection, treatment, and disposal systems . . ."[19]

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[16] *Id.*, p. 16.

[17] *Id.*, p. 17.

[18] App. Exs. 11-12.

[19] Code § 26.0282.

C. Applicant's Arguments and Evidence

Applicant argued that centralized wastewater treatment services are clearly needed in the area to serve Applicant's residents, and no existing or proposed areawide wastewater treatment system is available to serve the city's needs. Having wastewater services will provide a much-needed alternative for those property owners who do not have adequate septic systems, Applicant noted. In addition, Applicant said it must have services in order to support new development in the area.

1. Donald E. Paschal, Jr.

Mr. Paschal, who served as McKinney's city manager for about 19 years, now has a private consulting business through which he assists cities with municipal operations, including development and land use issues. Since the late 1960's, he has had experience dealing with the NTMWD and said he was very familiar with Collin County's wastewater treatment facilities.[20] According to Mr. Paschal, Applicant has no wastewater options available to it at this time other than to build its own plant.[21]

Mr. Paschal said the Collin-Grayson Municipal Alliance, which he helped to organize, is an association of four municipalities near to Weston – Melissa, Anna, Van Alstyne, and Howe – that was formed to work on common issues.[22] Neither the alliance nor those individual cities have any wastewater treatment projects pending and, consequently, have no capacity to provide Weston with wastewater services.[23]

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[20] Tr. 611-612.

[21] Tr. 622.

[22] Tr. 613.

[23] Tr. 615-616.

The NTMWD's Upper East Fork Interceptor System has two major wastewater lines that serve portions of McKinney, but the line does not go north to Weston. One of the lines would reach the same outfall basin as Weston's at Upper East Fork and Honey Creek, but the line cannot be made available for Weston because McKinney and Melissa are already using the line.[24] NTMWD plans to provide for some additional capacity in the Upper East Fork System to serve its existing customers.[25] That line would have additional capacity for Weston but it will flow into NTMWD's Upper East Fork's regional line, and that regional line is near its capacity.[26] Likewise, the Plymouth Creek line, about three or four miles from the proposed facility, has no capacity available unless some other user gives up service, and no additional capacity is planned there for three years.[27]

It is possible in four or five years to build or expand an outfall line, but the problem is capacity, Mr. Paschal testified. It would take longer than that – perhaps 12-15 years – to build a regional wastewater treatment plant.[28] Another alternative is that, as outfall mains are built, they could be built to be part of the ultimate collection and treatment system, even if lift stations are required to get wastewater to a regional plant.[29]

Another impediment to Weston's obtaining wastewater services from NTMWD is flow volume. Mr. Paschal said:

> I think that we can work to get Weston some capacity. It will be a while. . . . [O]ne of the challenges I see with Weston . . . [is that] the initial few years of that project will not generate sufficient flow to justify a three or four mile line to get down to the

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[24] Tr. 620-621.

[25] Tr. 655.

[26] Tr. 650.

[27] Tr. 621, 649.

[28] Tr. 624-625, 635.

[29] Tr. 635.

existing North Texas facilities. You need to build up some volume before you can then go to . . . North Texas and . . . guarantee . . . that we will provide flow of effluent of not less than some volume capacity. That may be a quarter of a million to a half million gallons. . . . capacity has got to be provided not just from Weston to the current termination of the line, but all the way down to the location where the wastewater is treated. So you better have some flow volume to get any economies of scale."[30]

2. Michael A. James

Mr. James is a licensed professional engineer and his firm serves as Applicant's city engineer.[31] Mr. James, or those he directly supervised, prepared the application, Applicant's Exhibit 15.[32]

Based on information supplied by the North Central Texas Council of Governments, Applicant's projected population is estimated to almost quadruple between 2000 and 2010:[33]

Year	2000	2010	2020	2030
Population	635	2,417	4,500	7,652

Mr. James said the development of the Parks at Honey Creek will add about 3,323 people and 36 acres of commercial property in the Honey Creek Drainage Basin by 2010.[34]

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[30] Tr. 656-657.

[31] App. Ex. 26, pp 1-5. He has ten years of civil engineering experience, including surveying, drafting, design, project management, construction inspection, and client relations. He holds a B.S. in civil engineering from Texas Tech University.

[32] App. Ex. 26, p. 1.

[33] App. Ex. 15, Domestic Technical Report 1.1, Attachment.

[34] *Id.* at Table 1.

Mr. James also has learned that there are no existing or proposed wastewater treatment facilities within three miles of the area to be served by Applicant's proposed facility.[35] The facility would serve about a thousand homes, and the system, as limited by draft permit, will be sufficient to meet Weston's present, but not its future, needs. When the plant reaches capacity, Applicant will need to expand the facility, build additional facilities, or tie into a regional plant.[36] But before Applicant will be able to tie-in to a regional system, NTMWD would have to build another treatment plant.[37] The Upper East Fork Interceptor System is, at its closest, about six miles from the facility location, but that system is too small to accept Applicant's wastewater, according to Mr. James.[38] The draft permit provides for the Commission to amend the permit to require Applicant to participate in an areawide system should one be developed and if it is feasible to do so.[39]

3. Patti Harrington, Weston's Mayor

Ms. Harrington testified that the facility, if permitted, will provide wastewater services to downtown Weston, which is about three miles from the proposed facility,[40] and to the Parks of Honey Creek development.[41] Those living in Weston's downtown area have individual septic systems, and there have been problems with those systems to the point where they have become a serious health and environmental concern, she stated.[42]

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[35] App. Ex. 26 at 16-17.

[36] Tr. 193, 200-201, 207, 222.

[37] Tr. 215, 217.

[38] Tr. 225, 232, 249.

[39] App. Ex. 26 at 18; Special Provision (SP) No. 1.

[40] Tr. 107.

[41] Tr. 30.

[42] App. Ex. 24 at 4; *see also* Tr. 65 and 77.

The developers have planned a master community with 5,500-6,000 homes and some retail and commercial establishments.[43] As Ms. Harrington understands the situation, a regional system that could meet the developers' needs is not available at this time,[44] and the developers expect to begin construction within a year.[45]

4. Scott Norris

Mr. Norris said the developers plan to build the development in phases.[46] Initially, they will build 500 homes and some commercial components. The total planned development will have 6,000 homes and also have commercial properties.[47] NTMWD staff members told him the NTMWD would not have sewer capacity for the development until 2011. They advised him to support Weston's application, rather than to seek wastewater services from the NTMWD.[48] Although the developers will provide initial financial support for sewer construction, they will neither operate nor own the system, he added.[49]

D. Protestants' Arguments and Evidence

Mr. Town agreed with Applicant that Weston needs a wastewater facility, but he argued that the system, as limited by the draft permit, will not meet Applicant's needs. The other Protestants asserted that Applicant should assist those few residents who need to have their septic tanks repaired

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[43] Tr. 42, 62.

[44] Tr. 41, 56, 97.

[45] Tr. 103.

[46] Tr. 158.

[47] Tr. 136, 138-139.

[48] Tr. 119.

[49] Tr. 145.

or replaced and wait the short time until the NTMWD can build a regional wastewater facility. A regional facility that is not built along a creek and in or near a floodplain would be more efficient and more environmentally sound, they contended.

1. Nina Dowell Ringley

Ms. Ringley said Weston residents who currently have septic tank problems could be helped by having new septic tanks built.[50]

2. Edward A. Town[51]

Although Mr. Town is a Weston city council member,[52] he participated in the hearing solely as a landowner and did not purport to represent the council's position.[53] Mr. Town said he opposes the planned facility for several reasons.[54] In Mr. Town's opinion, the city's sewage problems are not as bad as Applicant characterizes them.[55] And, as planned, the facility will meet some, but not all of Weston's needs.[56] Mr. Town also criticized the facility as proposed because, as he understand the plans, the facility will be a closed system that cannot be expanded to meet the city's future needs.[57]

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[50] Tr. 557.

[51] Mr. Town has a degree in engineering physics, with a focus in hydrology, water resources, and similar topics, but he also was not allowed to testify as an expert witness because his testimony was not prefiled. Tr. 353.

[52] Tr. 353.

[53] Tr. 377-378.

[54] Tr. 367.

[55] Tr. 368.

[56] Tr. 364.

[57] Tr. 368.

He would like to see an alternate way to meet the city's needs and still allow the developers to make a profit.[58]

3. Kenneth Bean

Mr. Bean suggested that the Parks of Honey Creek property could be developed with two-acre lots, instead of having five-to-eight houses per acre. If the density were kept lower, a wastewater treatment facility would not be needed, he stated.[59]

E. OPIC's Arguments

Based on Mr. Paschal's testimony, OPIC agreed with Applicant that there are no proposed facilities available to serve Applicant's wastewater needs.

F. Analysis

The state policy, as expressed in Code § 26.003, is, "to encourage and promote the development and use of regional and areawide waste collection, treatment, and disposal systems to serve the waste disposal needs of the citizens of the state." But clearly, no regional or areawide services are available to Applicant at this time. NTMWD's lines are at capacity or allotted to existing users, and no neighboring city has services available to Applicant. Even assuming that Applicant could secure wastewater services from NTMWD or another areawide source in the next five years, Weston's residents have already experienced some problems. If Weston does construct a facility in the near future, it will address the needs of those current residents.

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[58] Tr. 365.

[59] Tr. 295-296, 298.

Construction of a new facility will also allow Weston to grow through new development. The draft permit limits the amount of wastewater that the proposed facility could accept, and based on its projected growth, Applicant must look to additional options for services in the future. But it cannot reach the goal of using a regional system until it has some underlying volume to make it feasible. Based on the evidence, the ALJ concludes that Applicant has proven sufficient need for a permit. As discussed in the following sections, however, the facility as it has been proposed should not receive a permit.

IV. IS THE PROPOSED FACILITY LOCATED IN THE 100-YEAR FLOODPLAIN, AND IF SO, DOES THE DRAFT PERMIT CONTAIN ADEQUATE PROVISIONS TO PROTECT THE FACILITY FROM INUNDATION BY SUCH A FLOOD EVENT?

A. Background

The place Applicant has selected for the facility is the low point in Weston's drainage basin,[60] and about half of one of Applicant's proposed storage ponds lies in a floodplain. A 100-year floodplain is "[a]ny land area which is subject to a 1.0% or greater chance of flooding in any given year from any source."[61] If a facility's *treatment units* are to be located within the 100-year floodplain, a facility's project design must have satisfactory protective measures, such as levees or elevated treatment units, to protect against flooding.[62] A wastewater treatment plant unit is defined as:

> any apparatus necessary for the purpose of providing *treatment of wastewater* (i.e., aeration basins, splitter boxes, bar screens, sludge drying beds, clarifiers, overland flow sites, treatment ponds or basins that contain wastewater, etc.). For purposes of compliance with the requirements of §309.13(e) of this title (relating to Unsuitable Site Characteristics), this definition does not include off-site bar screens, off-site lift

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[60] Tr. 166.

[61] 30 TAC § 309.11(7).

[62] 30 TAC § 317.1(b)(4)(E)(i).

> stations, flow metering equipment, or post-aeration structures needed to meet permitted effluent minimum dissolved oxygen limitations.[63]

As required by Special Provision (SP) No. 8 in the draft permit, Applicant must, prior to construction, submit to the TCEQ Wastewater Permitting Section a summary submittal letter, and if that section requires, Applicant must also submit "plans, specifications and a final engineering design report which comply with 30 TAC Chapter 317, Design Criteria for Sewerage Systems," and clearly show how the treatment system will meet the [permit's] effluent limitations . . . " SP No. 18, by referring to 30 TAC § 309.13(a), prohibits Applicant from constructing a wastewater treatment plant unit in the 100-year floodplain unless the plant unit is protected from inundation that may occur during that event. Likewise, SP No. 22 requires Applicant "to provide facilities for the protection of its wastewater treatment facilities from a 100-year flood." SP No. 19 requires the three golf course effluent storage ponds and wastewater treatment plant storage pond to be bermed or have other protective measures to prevent inundation and damage that may occur during a flood event. SP No. 20 requires Applicant to maintain a 50-foot buffer from Honey Creek and its tributaries where no effluent will be applied.[64]

B. Applicant's Arguments and Evidence

Applicant acknowledged that some of the effluent storage ponds will be located partially within the 100-year floodplain. However, Applicant argued, the Commission's rules do not prohibit this location, and SP No. 19 of the draft permit requires all of the storage ponds to be protected from a 100-year flood:

> The three golf course effluent storage ponds and wastewater treatment plant storage pond shall be bermed or have other protective measures to prevent inundation and damage that may occur during a flood event in accordance with 30 TAC §309.13(a).

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[63] 30 TAC §309.11(9). (Emphasis added.)

[64] App. Ex. 16 at 24-25.

This provision is actually more stringent than the requirement in the TCEQ rules, as section 309.13(a) applies only to a "wastewater treatment plant unit," which is defined as "[a]ny apparatus necessary for the purpose of providing *treatment* of wastewater," Applicant argued, citing 30 TAC § 309.11(9). The storage ponds will be used for effluent that has already been treated, and thus are not included in the Commission's rules.

With testimony that was only anecdotal, Protestants' evidence did not establish otherwise, Applicant contended. In addition, since the last major flood event in 1990, FM 170 near the proposed wastewater treatment plant site has been raised and a new bridge built in just the last few years. Applicant asserted that those improvements will alleviate the flooding that might have previously occurred in that area.

Mr. James testified that he researched whether the treatment plant would be located within the 100-year floodplain and determined that it will not be.[65] In making that determination, he relied on the applicable Flood Insurance Rate Map prepared by the Federal Emergency Management Agency (FEMA), which is the source of information commonly relied on by professionals to determine the location of the 100-year floodplain.[66] In addition, Mr. James said Applicant's treatment facility will be located wholly within an enclosed structure.[67]

On its water well map, Applicant labeled a body of water as, "Existing Cattle Pond to be Drained."[68] However, the draft permit specifically states that the "permit does not authorize the

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[65] App. Ex. 26 at 9.

[66] *Id.*

[67] App. Ex. 26 at 12.

[68] App. Ex. 15; App. Ex. 16, last page.

draining of the cattle pond shown in Attachment A. The draining of this pond must comply with all applicable rules and regulations."[69]

C. Protestants' Arguments and Evidence

Various Protestant witnesses testified about severe flooding that has occurred on and around the wastewater treatment plant location. They also asserted flooding will be even worse in the future due to changing conditions in the area.[70] Given the conditions, Protestants argued that the draft permit does not include adequate provisions to protect the facility from inundation by a flood event. Also, since Applicant did not perform any field work to determine the soil conditions and calculate a base-flood elevation, the Commission does not have the data needed to determine whether or not the proposed facility is safe from future floods, they asserted.

1. Nina Dowell Ringley

Ms. Ringley has served in numerous community and state organizations and was a member of the Texas Historical Commission for four years. She is currently the president of the McKinney Historic Neighborhood Association.[71]

In the mid-1800's, Ms. Ringley's ancestors settled on the land where her parents, Mr. and Ms. Dowell, now live, and Ms. Ringley grew up there in the 1960's. Ms. Ringley has swum and fished at Honey Creek; as a child, she had birthday parties alongside of it.[72] She personally recalled the effects of floods in the area where the facility would be built. During major floods in 1982 and

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[69] SP No. 21, App. Ex. 16 at 25.

[70] Tr. 311-312.

[71] Tr. 531.

[72] Tr. 533.

1990 and a less severe flood in 1989,[73] large objects, including two cars, floated down Honey Creek.[74] When flood waters recede after floods, there is a strong odor in the area from dead fish, she said.[75]

During the floods, water went over FM 170, so that people could not pass the road or cross its bridges.[76] FM 170 is less than 75 yards south of the proposed facility. Even though the road has been paved at a higher elevation since the last flood, Ms. Ringley thought the change would increase, rather than decrease, the possibility for flooding because the raised road will obstruct the water and cause it to back up onto Applicant's facility site.[77]

Noting the history of flooding and the raised road on FM 170, Ms. Ringley said an accurate floodplain study should be completed before the Commission rules on the draft permit.[78] Even without further study, she believes it is obvious that a proposed storage pond is actually in the floodplain and that storage pond would be, by her estimate, 30 feet from the treatment plant.[79]

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[73] Tr. 535, 574.

[74] Tr. 549.

[75] Tr. 549.

[76] Tr. 575.

[77] Tr. 536.

[78] Tr. 534.

[79] Tr. 536-537, 563; P. Ex. 12.

2. Lawrence Ringley

Mr. Ringley, a registered professional land surveyor, owns Ringley and Associates, Inc., in McKinney.[80] The Dowells are his parents-in-law, and, by marriage, the McKees are his cousins. Beginning in 1978, Mr. Ringley has assisted Mr. Dowell on weekends with farming and ranching.[81] Based on his experiences on the farm, he is concerned about a breach of the facility during floods.[82]

Mr. Ringley said a house floated down Honey Creek and a refrigerator floated onto the Dowell property during the 1982 flood.[83] A flood in 1990 was just as bad, he said. In both the 1982 and 1990 floods, water swelled out of Honey Creek's banks and over FM 170.[84] In addition, the life span of the flood control lakes in the area that were built in the 1950's has decreased, and the hazard level below the lakes has increased.[85]

3. Seth Dawson Ringley

The son of Protestants Mr. and Mrs. Ringley, Seth Ringley is a junior at Texas A&M University. He grew up working and playing on the Dowell family farm and went swimming and fishing in the ponds and in Honey Creek. He recalled the 1990 flood when the farm's

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[80] Tr. 471. The ALJ required the parties to prefile expert testimony, and Mr. Ringley's testimony was not prefiled. Therefore, he was allowed to testify only as a fact witness.

[81] Tr. 472-473.

[82] Tr. 494.

[83] Tr. 473-474.

[84] Tr. 474.

[85] Tr. 480.

entire pasture was under water and also mentioned the odor of dead fish that he smelled as the water receded.[86]

4. Eleanor McKee

Ms. McKee, who is one of Ms. Ringley's cousins, lives at 5065 FM 170, on the Grizzell-Kenedy Survey. Her property, which is within a mile of the proposed facility, has been in her family since her great-great-grandmother received it in a land grant from the Republic of Texas in 1835. Although Ms. McKee has lived there only three years, she has visited the property since childhood because her grandmother and other relatives lived there.[87]

In Ms. McKee's opinion, the proposed facility site is a very precarious place for construction because it is so close to the floodplain and in an area that historically floods.[88] As a property owner, Ms. McKee first experienced flooding there about two years ago. A branch of the Trinity River Fork called Turkey Creek runs through her property, and water spilled over the creek banks and backed up into her field.[89]

Ms. McKee described U.S. Department of Soil and Water Conservation flood control lakes near the facility site. One of the lakes is on Applicant's property and is described on the application as a cattle pond. It was built in 1952 to reduce downstream flooding. The 14.9 acre lake will cover 43.8 acres at flood stage, she stated.[90] In addition to that lake, there are other flood control lakes

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[86] P. Ex. 22.

[87] Tr. 405.

[88] Tr. 407.

[89] Tr. 429-420.

[90] Tr. 412-413.

nearby. One is a mile southwest of the lake on Applicant's property and other lakes are south and west of her property.[91]

5. Michael McKee

Mr. McKee teaches computer graphics at Collin County Community College and had a commercial photography studio in Dallas for 25 years.[92] He lives with his wife, Eleanor, at 5065 FM 170. Their property is within one-half to three-fourths mile from the proposed facility's site.[93] He noted that the facility site, which would be "on the border of the flood control area," is at the lowest elevation in the area," and accordingly, water will run there.[94] Because of the history of flooding and potential for problems in the future, Mr. McKee said it would be wise to wait until Weston can access a regional facility for its wastewater needs.[95] In his opinion, five years is not too long to wait for one,[96] and a regional system would prevent the problems that concern the Protestants.[97]

6. Edward A. Town

Mr. Town's property at 7997 Queen's Way is immediately adjacent to the property where the developer proposes to build homes. He has owned the property for six years and lived there for

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[91] Tr. 413, 425.

[92] Tr. 461.

[93] Tr. 450-451, 464.

[94] Tr. 453.

[95] Tr. 457.

[96] Tr. 458.

[97] Tr. 460-461.

four.[98] Mr. Town is concerned that development will affect the flood control lakes and cause more flooding on his property.[99] Mr. Town's property has flooded twice since he has lived there. During one flood, his neighbor had to push water moccasins away in order to get to his property.[100]

Property adjacent to Mr. Town's property has two water conservation lakes that were made for flood control. One lake is only about three feet deep and is almost fully silted in.[101] Because of the silting, the water cannot drain through the cisterns, and it backs up and runs off the property where the lakes are. When Mr. Town inquired about cleaning out the lakes, he was told there was no money for such a project.[102]

7. Thomas B. Crossland

Mr. Crossland's land is adjacent to the proposed facility site on the west side of Honey Creek. He said the area is in a floodplain and said during the 1978 flood, houses, furnishings, and cars washed down and scattered along Honey Creek between FM 171 and FM 170.[103]

8. Norman Gidney

Norman Gidney, a lifetime farmer and rancher, has lived on the property located at 6110 North FM 543 for 76 years and farms between 4,000 and 4,500 acres.[104] In 1957, he worked

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[98] Tr. 352, 354-355, 374, 378, 381.

[99] Tr. 360.

[100] Tr. 355, 358.

[101] Tr. 355.

[102] Tr. 369.

[103] P. Ex. 35.

[104] Tr. 317-318, 328.

a farm near State Highway (SH) 75 and FM 543 where the Trinity River's East Fork and Honey Creek flooded 14 times. He lost 14 head of cattle that year.[105]

Mr. Gidney also has farmed on the proposed facility site and described flooding there.[106] During one flood, he had to move his cattle to higher ground; the flood waters rose to the fence line and tore the fence down.[107] He did not lose cattle in that flood, but he "gained two" when someone else's cows floated down the creek and drowned. Mr. Gidney said there had been several other floods in the area, some minor and some major.[108]

In 1949, the Soil Conservation District built two emergency flood control lakes near his residence. The other four emergency flood control lakes were built in the 1950's or during the three years he was in the army. Those four lakes surround the site where Applicant intends to build its facility, Mr. Gidney noted.[109]

9. Michael Gidney

Michael Gidney, Norman Gidney's son, is also a farmer and rancher in the area. He lives at 6741 County Road 202 but grew up on the same land where his father now lives.[110] Michael Gidney has witnessed three floods on the site where Applicant wants to build its wastewater facility – in

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[105] Tr. 317-318.

[106] Tr. 326.

[107] Tr. 324.

[108] Tr. 321.

[109] Tr. 319-320.

[110] Tr. 337-338.

1978, 1982 and 1990. In 1978, he and his father had leased that property, and he assisted in moving cattle to higher ground and observed fences that flood waters had washed out.[111]

In 1982 and 1990, the flood waters were about a foot short of going over SH 75. Because of flooding on FM 170, Collin County workers took out an old iron bridge and raised the bridge and the road. That bridge and portion of the road are immediately adjacent to where the facility would be. Instead of alleviating flooding problems, the higher bridge and road have caused the water to back up more, Mr. Gidney stated.[112]

10. Wayne Albright

Mr. Albright has lived at Melissa, Texas, since 1950. For the past 26 years, he has traveled south of Melissa on SH 75 to work. Mr. Albright said he has seen Honey Creek at flood stage when the fields adjacent to the creek on both sides of the highway were completely covered with water. Once, the flood waters were so deep that houses along the highway and along FM 543 were standing in water, and Mr. Albright saw fire department rescuers carrying residents from those flooded houses. During one flood, a new channel of the Trinity River was formed and is still present on the north side of SH 380.[113] Based on his observations, Mr. Albright is concerned that a sewage treatment plant at the junction of Honey Creek and FM 170 would be in danger of flooding with sewage spilling into the creek and contaminating Honey Creek and, possibly, also the East Fork of the Trinity River.

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[111] Tr. 339-340.

[112] Tr. 341, 344, 530.

[113] P. Ex. 21.

11. Robert Minshew

Mr. Minshew has lived in Collin County his entire life and has lived at his current address, 6674 FM 170, since 1984. The property, which has been in his family since 1939, is adjacent to and west of Applicant's property and south of Mr. Crossland's property.[114]

Mr. Minshew said he could recall at least three major floods, but the worst one was in 1990. The "government lake" on his property, which usually covers 18 acres, expanded to 40 acres. Fish were in the pasture going out towards Honey Creek. An area on his property that had no erosion before the flood eroded in one night to a level that was four feet deep and 200 yards wide. The flood knocked down fences and covered the road above the bridge at Honey Creek.[115] The facility site will be 160 feet from the creek, and on his side of the creek, water has flooded out of the creek's banks that far.[116]

Even though the 1990 flood was the worst one, Mr. Minshew said other floods have had the same pattern; all the water from the pastures goes to the creek.[117] He also saw the house that floated down the creek and said parts of it were still in the creek a few years ago.[118] He added that, after flooding, trash is everywhere, including on the side of the creek where the facility would be built.[119]

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[114] Tr. 267. Mr. Minshew home is marked on App. Ex. 34, as "Frisby." He also owns property that is marked,"Minshew" on the map. Tr. 277-278.

[115] Tr. 268.

[116] Tr. 274-275.

[117] Tr. 270.

[118] Tr. 272.

[119] Tr. 275.

12. Kenneth Bean

Mr. Bean lives at 5450 Windmill Lane, south of Weston and about a mile north of the facility site.[120] He and his wife own 79 acres of property.[121] Mr. Bean witnessed the flood in the 1980's when the house on the bluff of Honey Creek washed into the creek bed itself.[122] The bluff is about 30 feet high and is a mile or two from the facility site, he said.[123]

During the 1990 flood, Mr. Bean was not able to cross FM 543[124] to get to SH 75 because water was over the road; he had to drive to Anna and get on SH 75 from there. At one point where the river goes under SH 75, the water was only a foot or two below the highway. Twice in the past year, water from Honey Creek has washed out part of FM 543, he stated.[125]

In addition, Mr. Bean testified that the flood control lakes made in the 1950's are, for the most part, silted in, and no longer have the capacity to hold the water they did in the past. As a consequence, he believes the area's flooding will be even worse in the future than it has been in the past.[126]

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[120] Tr. 289, 307.

[121] Tr. 290.

[122] Tr. 290.

[123] Tr. 305-306.

[124] FM 543 is about a mile and a half mile east of the proposed facility site, and SH 75 is four to four and a half miles east of the site. It is not clear at what point along FM 543 Mr. Bean attempted to cross the road. Tr. 292.

[125] Tr. 292.

[126] Tr. 312.

D. OPIC's Arguments

OPIC characterized the application as deficient because it did not include any specific measures to protect the facility in the event of a 100-year flood. OPIC argued that the floodplain map provided by Applicant shows the treatment plant so close to the 100-year floodplain that Applicant had to greatly magnify the plant location to show that the plant is just outside the approximate 100-year floodplain.[127]

OPIC further argued that, given the proximity of the facilities to flood-prone areas shown on the FEMA map, a detailed flood study of the area would be of great benefit, especially because several of Protestants' witnesses testified that severe flooding has occurred along Honey Creek, including in the area where the wastewater treatment plant is proposed to be located.

According to OPIC, the number of floods and the magnitude described by the Protestants' fact witnesses tended to cast some doubt on the certainty of a floodplain designation already labeled as "approximate" by Applicant's engineer. Even though SP No. 22 of the draft permit requires Applicant to "provide facilities for the protection of its wastewater treatment facilities from a 100-year flood,"[128] OPIC argued that the provision will be of no effect for two reasons. First, Applicant does not consider itself subject to any regulatory constraint concerning the floodplain because its actual plant will be outside the floodplain, and second, the Commission's rules are silent as to

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[127] App. Ex. 20.

[128] App. Ex. 16, page 25, SP No. 22.

requirements for storage ponds that are within the 100-year floodplain.[129] Therefore, OPIC recommended expanding the language in SP No. 22 to include the following:

> The permittee shall submit the results of a detailed flood analysis for the areas in which the treatment units will be located with the summary submittal letter and final engineering design report required by Special Provision No. 8. The final engineering report shall provide the design and specifications for any protective measures to protect the facility against a 100-year flood.

E. Applicant's Rebuttal to OPIC

The additional language requested by OPIC is both unnecessary and not required by the TCEQ rules, Applicant argued. A detailed flood analysis would not provide any additional protection, given that the draft permit is already written as if the treatment plant were in the 100-year floodplain. The draft permit also already requires Applicant, prior to construction, to submit information to TCEQ regarding the design of the plant in accordance with section 317.1 of the Commission's rules.

F. Analysis

Because the facility site is a low point in the drainage basin and a storage pond is bisected by a FEMA floodplain designation, it is reasonable to assume the proposed site will be flooded at some point in the future. Many of Protestants' witnesses who testified about flooding own or have worked on property adjacent to Applicant's site: the Crosslands, Mr. Minshew, the McKees, and the Ringleys. In addition, Messrs. Gidney have leased the same land which Applicant now owns,

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[129] OPIC notes the flood hazard analysis of the "preliminary engineering report" required by 30 TAC § 317.1(b)(4)(E)(i) is "only necessary to resolve any potential disagreements between the design engineer and the Commission regarding the essential planning information, design data, population projections, and other requirements of the commission." 30 TAC § 317.1(b)(1)(B). Therefore, any question regarding the flood hazard analysis that has come up between the provision of the ED's draft permit and the hearing will have been lost unless the ALJ and the Commission require further inquiry as part of the permittee's summary transmittal letter and complete plans and specifications.

and the men had to move their cattle to higher ground during floods and observed flood waters that brought other cattle onto the property and destroyed the fences. The witnesses also established that water from Honey Creek has overflowed its banks during the floods.

Applicant argued that this evidence did not address the true issue, *i.e.*, whether the treatment plant itself will be in the floodplain. The Commission's rules require a facility's design to have satisfactory protective measures, such as levees or elevated treatment units, when *treatment units are to be located within the 100-year floodplain* and further define a "wastewater treatment plant unit" to include items needed to *treat* wastewater. Yet, SP No. 12 requires the water in the storage ponds to be re-chlorinated prior to the effluent being delivered into the irrigation system.[130] Therefore, the wastewater that has not evaporated will be treated in the storage ponds before being dispersed. As a result, the ALJ finds that the storage ponds are part of the plant unit needed to treat wastewater.

But even assuming that this definition of wastewater treatment plant unit does not include storage ponds, the ALJ redirects the focus of attention to the precise issue referred by the Commission, *i.e.*, whether the *facility* will be protected. Two other definitions in the Commission's rules provide insight into what is meant by a facility. "Existing facility" is defined as any facility used for the storage, processing, *or disposal* of domestic wastewater and which has obtained approval of constructions plans and specifications as of March 1, 1990.[131] "New facility" is defined as any domestic wastewater treatment facility which is not an existing facility.[132] While the definition of existing facility is limited by a date, it is noteworthy that the Commission intentionally included the term *disposal* as part of its definition of a facility.

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[130] App. Ex. 16 at 24.

[131] 30 TAC § 309.11 (4).

[132] 30 TAC § 309.11 (5).

Furthermore, the storage ponds themselves are integral to the flood protections required by the ED. In the ED's response to comments, the TCEQ Staff wrote, "when the ground is already saturated no irrigation may occur and the effluent must be directed to the proposed ponds for storage."[133] The proposed ponds are designed to store up to 260 days of effluent discharging at a daily average flow of 350,000 gallons per day. When there is no place for the effluent to be dispersed because of saturation, the effluent will be held in the storage ponds, one of which is in a floodplain and two of which are near Honey Creek. And the record does not address what will happen to the enclosed treatment building if the ponds cannot withstand the type of flooding that has occurred in the past.

Applicant relied on the special provisions to argue that, even if the facility is located in a floodplain, the facility will be adequately protected against flooding. The ALJ disagrees because the special provisions do not describe how the facility will be protected with any clarity or specificity. Under SP No. 8, a final engineering design report will be filed only if it is requested by TCEQ's Wastewater Permitting Section. SP No. 22 requires Applicant to provide "facilities for the protection of its wastewater treatment facilities from a 100-year flood," but the ALJ, and ultimately, the Commission members are left to guess what those protections would be. SP No. 19 requires the storage ponds to be bermed or have other protective measures to prevent inundation and damage, but the height of the berms, the materials with which they will be built, and other pertinent information is not included in the application or the draft permit. Without more specificity as to how these flood-protection goals will be accomplished, the ALJ cannot conclude that there are adequate provisions to protect the facility from inundation by a 100-year flood event. Therefore, the ALJ recommends that the application be denied.

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[133] App. Ex. 19 at 6-7.

V. WILL THE TREATED WASTEWATER DISPOSED OF BY IRRIGATION SEEP INTO THE SHALLOW WATER TABLE AND THE SPRING-FED PONDS, INCLUDING DURING PERIODS OF HEAVY RAIN, FREEZING WEATHER AND ICE STORMS?

A. Legal Standards

Before the Commission can issue a permit, it must be satisfied that the proposed site, when evaluated in light of the facility's design, construction, or operational features, will minimize possible contamination of surface water and groundwater. Further, a facility may not be located in an unsuitable or inappropriate area unless the facility's features will mitigate unsuitable site characteristics.[134] Several factors are to be considered in making that decision:

- geologic features and processes;
- groundwater conditions such as groundwater flow rate, groundwater quality, length of flow path to points of discharge, and aquifer recharge or discharge conditions;[135]
- soil conditions such as stratigraphic profile and complexity, hydraulic conductivity of strata, and separation distance from the facility to the aquifer and points of discharge to surface water;
- climatological conditions;
- the sufficiency of the soil to deal with nutrients;
- the adaptability of the crop to the particular soil, climatological, and wastewater sensitivity conditions that will exist;
- baseline groundwater conditions; and
- information on the planned agricultural practice.[136]

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[134] 30 TAC §§ 309.10(b); 309.12.

[135] An "aquifer" is "[a] geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs. Portions of formations, such as clay beds, which are not capable of yielding a significant amount of groundwater to wells or springs are not aquifers." 30 TAC § 309.11(2).

[136] 30 TAC §§ 309.10(b); 309.12; § 309.20(a).

Further, applicants must provide information regarding all water wells and ponds within a half-mile radius of the disposal site, and if the information is available, the water uses for those wells.[137] Aspects of construction such as well logs, casing, yield, static elevation, water quality, and age must be furnished and evaluated in the technical report.[138]

Generally, a wastewater treatment plant unit and its proposed discharge sites may not be closer than 250 feet from a private water well.[139] Exceptions are considered on a case-by-case basis where the treatment plant and surface irrigation field are located at least 150 feet from a private water well.[140] Commission rules also require applicants to indicate the location of "all springs, seeps,[141] and surface waters in the state located on the site and within 500 feet of the property boundaries"[142] on the United States Geological Survey (USGS) topographic map provided with an application.

Local groundwater resources below the wastewater disposal site must be monitored to establish pre-operational baseline groundwater quality when monitoring wells are available. Monitoring shall provide these analytical determinations: total dissolved solids, nitrate nitrogen, chlorides, sulfates, pH, and coliform bacteria.[143] Groundwater resources serving as sources or potential sources of domestic raw water supply must be protected by limiting wastewater application

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[137] 30 TAC § 309.20(a)(4).

[138] 30 TAC § 309.20(a)(4)(A).

[139] 30 TAC § 309.13(c).

[140] 30 TAC § 309.13(c)(1).

[141] A "seep" is a place where petroleum, etc., oozes slowly out of the ground. *Oxford Dictionary and Thesaurus* (American Edition), p. 1376 (1996).

[142] 30 TAC §§ 309.10(b); 309.12 (prohibiting the Commission from issuing a permit unless it finds that the proposed site minimizes possible contamination of surface water and groundwater); and 309.20(a)(3) (requiring conceptual design of the wastewater facility to be based on the "soil physical and chemical properties, hydraulic characteristics, and crop use suitabilities for the waste application site.").

[143] *Id.*

rates. Effluent storage and treatment ponds presenting seepage hazards to the groundwater resources must be constructed with adequate liners.[144]

B. Applicant's Arguments and Evidence

Applicant relied on Mr. James' testimony about his conservative water balance calculations and resulting limits on the effluent application rate to argue that the soil will not become saturated and, consequently, excess effluent will not seep into groundwater or move off-site. Moreover, Applicant argued, it used standard research methods and made a good-faith attempt to identify all properly documented wells and surface water features within the required radius.

Mr. James testified that, in his expert opinion, the treated effluent used for irrigation

> will not seep into the water table or spring fed ponds because there is adequate storage, of storm water runoff and plant effluent, to allow for effluent application at rates that will be absorbed by the proposed vegetation and used in the natural evapotranspiration process. In other words, the proposed plant life will use all of the effluent applied for irrigation, the remainder will be stored, and none will be left to seep to the water table or off-site, even during periods of heavy rain, freezing weather, or ice storms.[145]

The land upon which effluent will be sprayed is gently sloping to sloping clayey soil that is deep over marl and chalk, on uplands. Based on the hydrogeologic soil group, Mr. James developed the curve number[146] for the soil, and the curve number was used to determine the amount of storm water runoff for the soil group and the amount of storage needed for the storm water and treated wastewater. Based on his calculations, he determined that effluent will not seep into the water table

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[144] 30 TAC § 309.20(a)(4)(B).

[145] *Id.* at 15-16.

[146] The curve number is a numerical classification of the soil permeability based on soil type and land use. To calculate it, Mr. James used the method developed by the U.S. Natural Resources Conservation Service. App. Ex. 26 at 15.

or spring fed ponds because there will be adequate storage of storm water runoff and plant effluent to allow for effluent application at rates that will be absorbed by vegetation and used in the natural evapotranspiration process. Mr. James estimated the consumptive use requirement of Bermuda grass at 40 inches/year.[147] The storage ponds are designed to store up to 260 days of effluent discharging at a daily average flow of 350,000 gal/day.[148]

In addition to the limits on the application rate, the draft permit contains provisions that address water table protection. Applicant must design and manage the irrigation "so as to prevent contamination of ground and surface waters. . . . Tailwater control facilities shall be provided as necessary to prevent the discharge of any wastewater from the irrigated land."[149] Irrigation is prohibited during rainfall or when the ground is frozen or saturated.[150] Finally, storage facilities must be lined to prevent seepage.[151]

Applicant's chosen cover crop, Bermuda grass, requires a relatively high level of fertilizer to maintain good turf quality. The lowest rate of nitrogen that can be applied and still maintain acceptable turf for sports fields and golf courses is about 0.5 pounds per 1,000 square feet per month during the growing season or about 327 pounds per acre per year.[152] According to the draft permit, the effluent will provide approximately 14 pounds per acre per year of nitrogen fertilization. The remaining 313 pounds per acre per year of required nitrogen will be provided by a commercially available lawn fertilizer.[153]

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[147] App. Ex. 15, Technical Report, Land Disposal of Sewage Effluent.

[148] App. Ex. 19, p. 7.

[149] SP No. 4, App. Ex. 16 at 23.

[150] SP No. 5, App. Ex. 16 at 23.

[151] SP No. 17, App. Ex. 16 at 25.

[152] App. Ex. 15, "Bermudagrass," pp. 6-7 of 8.

[153] App. Ex. 15, Worksheet 3.1, Attachment, Cropping Plan.

Applicant identified four wells on its water well map and included well reports for those wells. As shown on the map, the well closest to Applicant property has a static level of 20 feet below land surface. The other wells vary in depth from eight to 350 feet below land surface, and their yields range from 18 to 600 gallons per minute.[154]

On Applicant's site pap, a blue line connects the flood control lake to Honey Creek, and both the pond/lake and creek are also shown in blue. Thus, the map appears to indicate that some water may sit or travel through the property, and the blue line crosses the largest part of what Applicant has designated as its irrigation area.[155]

C. Protestants' Arguments and Evidence

The Protestants argued that Applicant failed to meet its burden of proving effluent irrigation will not seep into the shallow water table and the spring-fed ponds in the area. Applicant failed to identify wells and a spring-fed pond that are used for daily human or livestock consumption, and the livestock pond is very near the proposed facility site, Protestants noted. Since potable water is not available in the area from any source other than a well or pond, Mr. James should have realized that wells were on the Dowell and McKee property because he knew persons lived there. The Dowell water well is downstream from the effluent discharge area. In conclusion, the Protestants argued that since Mr. James is not a geologist or a hydrogeologist and did not conduct a field investigation of the site, there is no evidence to demonstrate that irrigated effluent will not migrate or be washed by floods into their wells, ponds, and the underlying water table.

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[154] App. Ex. 15. The well reports follow the water well map.

[155] App. Ex. 15.

1. Nina Dowell Ringley

Ms. Ringley said a hand-dug well that is more than 100 years old continues to provide drinking water to her parents' home, and the well is not shown on any of Applicant's maps.[156] Not only does the well provide drinking water for the Dowell home, it provides water for the farm's cattle and at two other structures on the property, an airplane hangar and an old homestead place.[157] The application also omits four other wells in the area and a spring-fed stock pond directly south and within 100 yards of the proposed plant, Ms. Ringley stated.[158] Furthermore, she said the underwater natural springs along Honey Creek are close to the bridge and the area where the proposed facility is to be.[159]

2. Lawrence Ringley

Mr. Ringley said the spring-fed pond from which Dowell-Ringley cattle drink is 300-400 feet south of the proposed plant. Also, he said another well on the Dowell property is approximately 2,200-2,600 feet south of the plant site and 2,200 feet south of the discharge field. Neither the pond nor the well are shown on Applicant's maps.[160] The spring-fed, hand-dug well is 30-35 feet deep and always has water, even during droughts. Mr. Ringley has pumped it dry and determined that the well will refill in 30 hours. Additionally, water pools on the lower bottom area on the east side of Honey Creek. To Mr. Ringley, the well refill rate and the Honey Creek springs indicate that the vicinity has a shallow water table.[161]

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[156] Tr. 532, 579; P. Ex. 32.

[157] Tr. 532, 572, 583.

[158] Tr. 536, 543-545; P. Ex. 32.

[159] Tr. 533, 574.

[160] Tr. 484-485, 502, 523; P. Ex. 32; Applicant's water well map can be found in App. Ex. 15.

[161] Tr. 488-489, 494.

3. Eleanor McKee

Two wells on the McKee property are between 150 feet and one mile of the facility, and those wells also were not shown on the application. Ms. McKee testified that one was dug in 2003 and serves their residence.[162] That well is deep enough to have reached an aquifer.[163]

Ms. McKee acknowledged that the address of the newer well on her property was incorrectly listed on the state well report. The report shows the location of the well to be in McKinney, which is at least ten miles away from the McKee's property.[164]

The other well Ms. McKee mentioned was hand-dug and is over 100 years old. Although the hand-dug well is not currently used for drinking water, it could be dug out and used for that purpose. Ms. McKee hopes to use it in the future to irrigate a pecan orchard.[165]

4. Michael McKee

Mr. McKee said the well that serves the McKee residence is directly behind their house and is visible on an aerial map, but he conceded that both wells are more than 500 feet from the facility site.[166]

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[162] Tr. 432, 435; P. Ex. 20

[163] Tr. 448.

[164] Tr. 432-433.

[165] Tr. 422-423; 435; 446-447.

[166] Tr. at 464.

D. OPIC's Arguments

Along the same lines as Protestants, OPIC noted the lack of a field investigation to determine the presence of any groundwater recharge features, geologic conditions, or soil conditions on the site. Along with this lack of key evidence, OPIC found the record unclear as to whether Mr. James was qualified to offer an expert opinion as to the existence or characteristics of springs, seeps, or surface waters, and, therefore, qualified to provide an opinion as to the impact of the waste disposal operation on surface and groundwater. Based on Applicant's lack of expert testimony on the issue of surface and groundwater contamination, OPIC argued that Applicant had almost failed to meet its burden of proof on this issue. But because there was no expert testimony regarding the need to conduct on-site investigations to determine the presence of seeps or active geologic processes, OPIC, instead, recommended a special provision that would require Applicant to provide a detailed geologic and hydrogeologic assessment of the effluent application area and areas within 500 feet of the property boundaries for the ED's review prior to construction, as follows:

> The permittee shall conduct and submit a Geologic and Hydrogeologic Assessment of the effluent application area and areas within 500 feet of the property boundaries to the TCEQ Water Quality Assessment Team (MC-150) for review, approval and/or modification of any Draft Permit provisions 90 days prior to construction. The Geologic and Hydrogeologic Assessment shall include the location of any seeps, springs, active geologic processes, and groundwater conditions in the effluent application area and areas within 500 feet of the property boundaries.

In addition, OPIC noted that several wells within one-half mile of the proposed facility were not reported to the ED.[167] On the other hand, each of the wells that should have been reported appear to be more than 250 feet from the wastewater application site, the treatment plant site, and the property boundaries. According to OPIC, Applicant's failure to identify those water wells could be remedied if Applicant provides the well information prior to construction and, thus, OPIC requested this special provision:

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[167] Tr. 422.

The permittee shall submit a Well Report to the TCEQ Water Quality Assessment Team (MC-150) for review 90 days prior to construction. The Well Report shall include the following information for all water wells onsite and located within a half-mile radius of the disposal site or property boundaries not previously reported to the TCEQ: well use (private, public, livestock, etc); whether the well is producing; whether the well is open, cased, capped, or plugged; and the proposed best management practice for that well; aspects of well construction, such as casing, yield, static elevation, water quality, and age for each well.

E. Applicant's Rebuttal Arguments

Applicant opposed the addition of any special provisions, arguing that the record about wells in the area is now complete, and the wells in question are beyond the minimum required distance from the permitted facilities. In addition, the draft permit already contains appropriate provisions to protect groundwater. Applicant also argued that to include additional conditions on the permit would render the permit non-final because the TCEQ staff could modify the permit without an opportunity for a hearing. Although the presence of a condition in an order does not automatically destroy its finality, that condition cannot "diminish or eliminate" the effect of the order or require subsequent agency approval, Applicant noted.[168] Therefore, Applicant argued, the ALJ should not recommend additional special provisions.

Applicant further contended that the presence of the Dowell and McKee wells should have no impact on the issues considered because Applicant has proven that irrigation with treated effluent as authorized by the draft permit will not affect the water table or ponds in the area. Secondly, those wells are all further away from the proposed wastewater treatment plant and irrigation sites than required by the Commission's siting rules since they are more than 500 feet from the facility site.

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[168] *Citing Texas-New Mexico Power Co. v. Texas Industrial Energy Consumers*, 806 S.W.2d 230, 231, 233 (Tex. 1991) and *North Alamo Water Supply Corp. v. Texas Dep't of Health*, 839 S.W.2d 448, 450-51 (Tex. App.--- Austin 1992, writ den.).

F. Analysis

The ALJ finds the balance of the evidence to be very close. However, for the following reasons, the ALJ finds there are too many groundwater-related issues unresolved to authorize the permit.

First, except in a very generalized way, the soil map does not show surface features of Applicant's property. Thus, Applicant has not proven whether there are any groundwater recharge features or any specific geologic conditions or soil conditions on the site. Further, the site map shows some water sitting on or running through the irrigation acreage. Without some type of field report, the ALJ cannot determine whether the blue line represents water connected to a shallow water table or generated by a spring-fed pond.

Second, it is unclear what serves as the source of water in the cattle pond or flood control lake. There are water spring features in the vicinity of Applicant's property, including along the east side of Honey Creek, and Applicant's property is also on the east side of the creek. With these water features so near to Applicant's property and in the absence of some type of field study, the record does not establish whether irrigation will seep into the water table or spring-fed ponds.

Third, the ALJ does not question Applicant's good faith in attempting to provide water well information to the Commission, and based on the evidence, the newer McKee well is more than 250 feet from Applicant's irrigation area. But the Commission's rules require information about wells that are within a half mile of the site, and even though the McKee's well report may not be helpful to the Commissioner's in making their decision, the fact remains that the application did not provide and evaluate information about this well, and that well is less than a half-mile from the facility site.

Therefore, the ALJ finds that Applicant has provided insufficient information to demonstrate whether or not treated wastewater disposed of by irrigation will seep into the shallow water table and the spring-fed ponds in the area, including during periods of heavy rain, freezing weather and ice storms.

VI. WILL THE AMOUNT OF TREATED WASTEWATER DISPOSED OF BY IRRIGATION SATURATE THE SOIL TO CREATE A HEALTH HAZARD, INCLUDING DURING PERIODS OF HEAVY RAIN, FREEZING WEATHER, AND ICE STORMS?

A. Legal Standards

As required by Commission rules, an application must include a general survey of soils based on United States Department of Agriculture (USDA) Soil Conservation Service soil surveys. Conceptual design aspects of a wastewater disposal system's waste application rates, crop systems, seepage, and runoff controls must be based on the soil's physical and chemical properties, hydraulic characteristics, and crop use suitabilities for the waste application site.[169] The draft permit prohibits effluent application for irrigation "during rainfall events or when the ground is frozen or saturated,"[170] and requires Applicant to:

- design and manage its irrigation procedures to prevent ponding of effluent and to prevent the occurrence of nuisance conditions in the area;[171] and
- provide equipment to determine effluent-application rates and maintain accurate records of the volume of effluent applied.[172]

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[169] 30 TAC § 309.20(a)(3).

[170] SP No. 5, App. Ex. 16 at 23.

[171] SP No. 4, App. Ex. 16 at 23.

[172] SP No. 6, App. Ex. 16 at 23.

B. Applicant's Arguments and Evidence

As support for the application as outlined in the draft permit, Applicant cited Mr. James' conservative calculations and his reliance on reliable sources of information. Applicant also noted the additional protections against soil saturation in the draft permit. When constructed based on the draft permit's terms, the facility will not dispense effluent in a way that will saturate the soil at any time, including during periods of heavy rain, freezing weather, and ice storms, Applicant asserted. Further, the irrigation allowed under the draft permit will not be comparable to the conditions Protestants described.

The effluent discharge rate will be limited based on Applicant's water balance calculations,[173] and Mr. James said he used a very conservative approach in calculating the water balance based on the "highest precipitation data for the county recorded in the last 50 years" and "the lowest evaporation rates recorded."[174] He relied on precipitation and evaporation data compiled by the Texas Water Development Board for Collin County, the soil data compiled by the Collin County Soil Survey (produced by the USDA's Soil Conservation Service), the evapotranspiration rate of the proposed crop to be irrigated (Bermuda grass), and the discharge rate of the proposed plant.[175]

On cross-examination, Mr. James was asked how the plant operator would know when the soil had become saturated, and he said the operator could determine this by visual observations.[176] He could not state whether saturation would occur before water begins to pond.[177] And although he

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[173] App. Ex. 22, TCEQ staff analysis of irrigation rates; App. Ex. 26 at 12-13.

[174] App. Ex. 26 at 13.

[175] App. Ex. 26 at 12 and 15.

[176] Tr. 243-244.

[177] Tr. 244-245.

could not specifically describe what the term "health hazard" means, he said the effluent application would present no health hazard because the soil would not become saturated.[178]

In general, the water requirements for Bermuda grass depend on turf use and climatic factors, such as temperature, wind, humidity, and light intensity. Water requirements are greater when higher levels of maintenance are required, and Bermuda grass on a golf green or sports field requires more water than a lawn or roadside. Water uses may range from less than 0.1 inch per day to 0.3 inch per day (40 inches/year), depending on environmental conditions.[179]

The Commission's Water Quality Assessment Team recommended changes to the permit that address pond liners, protective measures for the storage ponds to protect them against inundation and damage that may occur during a flood event, and a buffer zone from Honey Creek and its tributaries. They also recommended a soil monitoring plan.[180] Their recommendations were incorporated into the draft permit. Although Applicant had requested authorization to dispose of 4.8 af/yr the draft permit restricts effluent application rates to 2.85 af/yr per irrigated acre in the interim phase and 3.32 af/yr per irrigated acre in the final phase.[181]

Members of the Commission's Wastewater Permitting Section reviewed, evaluated, and revised Applicant's water balance and storage calculation, and those calculations served as the basis for setting the effluent application rates and storage requirements in the draft permit. They determined that the water balance calculations take into consideration the rainfall, the infiltrated rainfall, the crop evapotranspiration, the evaporation on the pond surface, the leaching requirements

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[178] Tr. 246.

[179] App. Ex. 15, "Bermudagrass," pp. 6-7 of 8.

[180] App. Ex. 23.

[181] App. Ex. 16, p. 23.

of Bermuda grass, irrigation efficiency, and a maximum hydraulic (effluent) application rate. That rate does not exceed the maximum, according to the Permitting Section.

C. Protestants' Arguments and Evidence

Noting that Applicant conducted no soil boring studies and percolation tests, Protestants argued that the draft permit lacks necessary data required to determine whether effluent will over-saturate the soil when it is applied at the rate specified. Further, Applicant conducted no field studies of site's runoff and erosion during heavy rain. Thus, Protestants argued, Applicant failed to demonstrate whether or not the area will not become a health hazard during periods of heavy rain, freezing weather, and ice storms.

In contrast, Protestants noted that their testimony clearly established a history of flooding around Honey Creek in general and on the facility site in particular. After substantial rains and floods, standing water has remained in the fields for a period of time. In light of the site's characteristics, the treated effluent will over-saturate the site, causing effluent to run into ponds, wells, and Honey Creek, they asserted.

Ms. Ringley testified that she has seen water standing after a "substantial rain."[182] Michael Gidney also said he had seen water standing in some areas after a certain amount of rainfall, and he has had to walk through standing water in the actual vicinity of the proposed facility several times to take cattle out of flooded zones.[183] Mr. Ringley added that, after a rain, it can take three or four days of good sunlight and moderate winds for the soil to dry.[184] Mr. Crossland said the treated water will quickly saturate the black soil and seep into the shallow water table and spring-fed ponds.

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[182] Tr. 569-570.

[183] Tr. 343.

[184] Tr. 488.

The soil saturation would create a health hazard because the water will become a mosquito breeding ground, he said.[185]

D. OPIC's Arguments

Because Mr. James was unable to identify what is meant by saturation and was equally unsure of what is meant by a health hazard, Applicant's proof on this issue is lacking, OPIC asserted. If Applicant's engineer did not clearly understand when saturation occurs, the system operator also will not know. Consequently, Applicant cannot comply with SP No. 5 which prohibits applying effluent for irrigation during rainfall events or when the ground is frozen or saturated. Accordingly, OPIC recommended the inclusion of a special provision in the draft permit that states the following:

> The permittee shall develop and submit a Final Irrigation Management Plan to the TCEQ Water Quality Assessment Team (MC-150) for review, approval and/or modification 90 days prior to construction. The Final Irrigation Management Plan shall describe the type of irrigation system, soil moisture monitoring devices and measures, the locations and cover of each spray nozzle, wastewater dosing schedule, and a proposal to prevent freezing, rupture or averting mechanical damage to the irrigation lines.

E. Applicant's Rebuttal Arguments

According to Applicant, OPIC was inaccurate in its assertion that, because Mr. James did not define saturation and health hazard questions, the evidence is insufficient to support the application, even as limited by the draft permit. The Commission's rules and wastewater permit application form require information from specified outside sources, such as the USDA and the USGS. Based on his engineering expertise, Mr. James performed the calculations required by the TCEQ rules and application form, using reliable data where appropriate. Therefore, Applicant asserted, it had provided all the certainty required by the rules. Further, citing 30 TAC § 309.4, Figure 1 (Set 4),

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[185] P. Ex. 35.

Applicant argued that the draft permit establishes effluent limitations more stringent than those required by the rules.

F. Analysis

To answer the Commission's question, the ALJ focuses on the single issue asked and answers the question based on the proposed irrigation rate and soil studies to find that the *amount* of treated wastewater disposed of by irrigation *will not saturate* the soil to create a health hazard, including during periods of heavy rain, freezing weather, and ice storms. Assuming the storage ponds were adequately bermed against flooding, Applicant would have several months worth of storage available to it and could select watering times when the soil is not saturated.

Water uses for Bermuda grass can range up to 40 inches a year, and that is the amount of water Mr. James determined Applicant could apply without saturating the soil. Not only were Mr. James' water balance calculations reasonable, the draft permit further limits the effluent application rate from 4.8 to 3.32 af/yr. With storage ponds that would hold up to 260 days of effluent, Applicant would be able to comply with the draft permit and not discharge effluent when the soil is saturated.

VII. DOES THE DRAFT PERMIT CONTAIN ADEQUATE PROVISIONS TO PREVENT NUISANCE ODORS FROM THE FACILITY?

A. Pertinent Rule

The Commission has defined nuisance odor prevention as:

> the reduction, treatment, and dispersal of potential odor conditions that interfere with another's use and enjoyment of property that are caused by or generated from a wastewater treatment plant unit, which conditions cannot be prevented by normal operation and maintenance procedures of the wastewater treatment unit. 30 TAC §309.11 (6).

B. Applicant's Arguments and Evidence

Applicant argued that the facility will actually exceed TCEQ odor-control requirements. The rules require *evaluation of each plant to determine the need* for odor control facilities,[186] but Applicant already plans to use odor control protections. Mr. James testified that, to control odors, the plant itself will be in an enclosed structure.[187] In addition, the facility will have a 150-foot buffer zone around it and the buffer zone is on city property.[188] While the irrigation field itself is not included in the buffer zone,[189] treated effluent will be chlorinated. Also, odor control canisters will be placed where the untreated wastewater enters the plant and will pull the air from the room and filter it through odor-absorbing media before discharging it to the atmosphere.[190] Sludge will be stored temporarily within the facility, and approximately every 20 days, it will be transported to a state registered landfill.[191] In Mr. James opinion, there is no additional equipment currently available or any change to the design of the plant that would better control odors.[192]

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[186] 30 TAC § 317.4(a)(10).

[187] App. Ex. 26 at 12.

[188] App. Ex. 26, at 11; App. Ex. 16 at 25.

[189] Tr. 246.

[190] App. Ex. 26 at 11; App. Ex. 27 (odor control system).

[191] Tr. 224, 226.

[192] App. Ex. 26 at 12.

C. Protestants' Arguments and Evidence

While the draft permit specifies equipment and procedures proposed to prevent odors, there was no actual performance data from similar facilities to validate Applicant's arguments, Protestants asserted. Mr. Crossland lives directly adjacent to Applicant's site, and he believes the wastewater odor will adversely affect the desirability and value of his land and be offensive to all existing homeowners adjoining the site.[193] Ms. Ringley also expressed concern about odors.[194] When Mr. McKee attended the TCEQ hearing in Austin, the staff gave him a list of existing wastewater treatment plants, and Mr. and Mrs. McKee and another person went to see three of them.[195] The plants were not completely enclosed as Applicant's facility would be, but they were represented as having the "latest and greatest technology." Even with this advanced technology, they still had odor problems, Mr. McKee said.[196]

D. OPIC's Arguments

OPIC took no position on this issue.

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[193] P. Ex. 35.

[194] Tr. 564.

[195] Tr. 453-454, 462.

[196] Tr. 454, 462.

E. Analysis

The draft permit contains adequate provisions to prevent nuisance odors from the facility. In the ALJ's opinion, the enclosed facility, odor canisters, sludge removal, and buffer zone will aid in mitigating odors. While there was no actual data from similar facilities to demonstrate the probable success of the planned system, Applicant has indeed demonstrated that the system will exceed requirements of the Commission's rules. Therefore, the ALJ finds Applicant's proposed odor control provisions are adequate.

VIII. ALLOCATION OF TRANSCRIPT COSTS

A. Applicant's Arguments

Applicant asked the Commission to allocate transcript costs one-half to Applicant, one-fourth to Mr. Town, and one-fourth to the Ringleys and McKees. Applicant noted that the majority of the time in the hearing was attributable to the direct cases and cross-examinations of Mr. Town and the Ringleys, on behalf of themselves and the McKees.

B. Protestants' Arguments

Protestants argued that they had already expended significant funds to participate in the hearing. As one example, they said they spent $500 to duplicate the maps they offered as exhibits. The McKees said they drove to Austin and paid the TCEQ Chief Clerk's office for a copy of the transcript, which they then xeroxed for Mr. and Mrs. Ringley. Further, according to Protestants, they were not able to afford an attorney to represent them; thus, they have already spent significant time participating in the contested case process. Finally, they argued they were protesting an action by a large land developer who they believe will endanger their property and compromise their health.

C. Analysis

The Commission's rules at 30 TAC § 80.23(d) list the factors that the Commission will consider in assessing reporting and transcription costs. The factors relevant to this case include the following:

(A) *The party who requested the transcript.* The ALJ ordered the transcript, and Applicant requested that the transcript be expedited.

(B) *The financial ability of the party to pay costs.* Applicant had a greater ability to pay costs because the developers helped to meet its legal expenses. Protestants' resources are not known, but it is true that they were not represented by an attorney, and they did produce multiple copies of many large maps and other exhibits.

(C) *The extent to which the party participated in the hearing.* With the exception of Mr. Paschal's testimony, Applicant prefiled its testimony, and thus, shortened the time needed for its direct case. While Protestants did not prefile testimony and spent more time questioning Applicant's witnesses than Applicant questioned the Protestants' witnesses, the ALJ finds that the extent of participation by all the parties was appropriate and none of the parties unduly burdened the transcript with frivolous arguments or unnecessary questioning of witnesses.

(D) *The relative benefits to the various parties of having a transcript.* As the party bearing the burden of proof, Applicant could anticipate the greatest potential benefit from an ability to cite and reassemble the information within the record, although all parties benefitted from having a transcript.

(G) *Any other factor which is relevant to a just and reasonable assessment of costs.* The ALJ does not find that any other factor should affect the assessment of transcription costs. The ALJ finds that all parties had plausible, good-faith arguments for the issues they raised.

Considering all of the factors in the Commission's rules, the ALJ finds that Applicant's financial ability, its potential benefit from having a transcript, and its expediting of the transcript weigh in favor of assessing 90 percent of the total transcription costs of $5,293.70 to Applicant, five percent to the Dowells/Ringleys and McKees; and five percent to Mr. Town.

IX. CONCLUSION

After a review of the record and for the reasons given above, the ALJ recommends that the Commission adopt the proposed Order and deny the City of Weston's application for a domestic wastewater permit.

SIGNED March 19, 2007.

SARAH G. RAMOS
ADMINISTRATIVE LAW JUDGE
STATE OFFICE OF ADMINISTRATIVE HEARINGS

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER denying the application of Domestic Wastewater Permit No. WQ0014602001; TCEQ Docket No. 2006-0199MWD; SOAH Docket No. 582-06-2770

On _____, 2007, the Texas Commission on Environmental Quality (Commission or TCEQ) considered the application of the City of Weston (Applicant) for proposed Domestic Wastewater Permit No. WQ0014602001. The application was presented to the Commission with a Proposal for Decision (PFD) by Sarah G. Ramos, Administrative Law Judge (ALJ) with the State Office of Administrative Hearings (SOAH).

After considering the ALJ's PFD and the evidence and arguments presented, the Commission makes the following Findings of Fact and Conclusions of Law:

I. FINDINGS OF FACT

1. Applicant filed its domestic wastewater permit application with the TCEQ in February 2005.
2. Applicant seeks a permit for a new wastewater treatment facility to be located at the intersection of Honey Creek and Farm-to-Market Road (FM) 170 in Collin County, Texas, which lies approximately 1.6 miles east of the intersection of FM 2478 and FM 170.

3. The Executive Director declared the application administratively complete on March 31, 2005, and subsequently issued a draft permit.

4. In accordance with the applicable TCEQ requirements, the Notice of Receipt of Application and Intent to Obtain a Water Quality Permit was mailed on April 8, 2005, and was published in the *McKinney Courier-Gazette* on April 12, 2005.

5. In accordance with the applicable TCEQ requirements, the Notice of Application and Preliminary Decision for Water Quality Land Application Permit of Municipal Wastewater was mailed on June 30, 2005, and was published in the *McKinney Courier-Gazette* on August 11, 2005.

6. The Commission issued an interim order on June 20, 2006, referring the application to SOAH for a contested case hearing.

7. Copies of the application, the draft permit, and the TCEQ Executive Director's preliminary decision were made available for review and copying at the Weston City Hall, a public place in Collin County.

8. Notice of the preliminary hearing was mailed on July 20, 2006, and was published in the *McKinney Courier-Gazette* on August 7, 2006.

9. The preliminary hearing was held September 13, 2006, at the Collin County Courthouse, 210 South McDonald Street, McKinney, Texas.

10. The following were named or recognized as parties at the preliminary hearing:

Party	Represented by:
Applicant	Angela Stepherson, attorney, and Patti Harrington, Mayor
Lawrence H. and Nina Dowell Ringley, John and Irene Dowell	Mr. and Ms. Ringley
Thomas B. and Susie D. Crossland, Sr.	Mr. Crossland
Mike and Eleanor S. McKee	Mr. and Ms. McKee
Edward A. Town	Mr. Town
Office of Public Interest Counsel (OPIC)	Emily Collins, attorney

11. By Order issued November 13, 2006, the ALJ notified all parties of the time, date, and location of the hearing on the merits.

12. The hearing on the merits was held on January 10-12, 2007, at the Collin County Courthouse.

13. Applicant's proposed facility site is at the low point in Weston's drainage basin.

14. Part of one of Applicant's three proposed storage ponds lies in a 100-year flood plain.

15. The draft permit requires Applicant to treat wastewater held in storage ponds by re-chlorinating the water before it is dispersed.

16. The draft permit requires Applicant to submit plans, specifications, and a final engineering design report only if TCEQ's Wastewater Permitting Section requires one.

17. Although the draft permit requires Applicant to provide facilities for the protection of its wastewater treatment facilities from a 100-year flood, neither the application nor the draft permit specify what those protective facilities will include.

18. Significant floods have inundated the proposed facility site and adjacent acreage.

19. The facility site is surrounded by four flood control lakes that were built by the U.S. Department of Soil and Water Conservation in the 1940's and 1950's.

20. The flood control lakes have become silted in, and no longer have the capacity to hold as much water as they did in the past.

21. One of the flood control lakes, a 14.9-acre lake, is on Applicant's site.

22. The 14.9-acre lake will cover 43.8 acres at flood stage.

23. During a 1990 flood, on one site that adjoins Applicant's property, the flood control lake, which usually covers 18 acres, expanded to 40 acres, and an area that had no erosion before the flood eroded in one night to a level that was four feet deep and 200 yards wide.

24. Applicant's proposed site flooded in 1978, and flood waters rose to the fence line and tore the fence down, cattle had to be moved to higher ground, and two cattle that did not belong on the property were washed there by flood waters.

25. During that 1978 flood, a house that was 30 feet above Honey Creek was washed down the bluff over which it was built and into Honey Creek.

26. During floods in 1982 and 1990, water swelled out of Honey Creek's banks and over FM 170, so that people could not pass the road or cross its bridges.

27. FM 170 is less than 75 yards south of the proposed facility.

28. The road and bridge on FM 170 nearest to Applicant's site recently have been raised, but this change has caused the water to back up even more onto adjoining land.

29. The facility site would be about 160 feet from Honey Creek, and water has flooded out of the creek's banks that far.

30. Applicant identified four wells on its Water Well Map and included well reports for those wells.

31. The well closest to Applicant's property has a static level of 20 feet below land surface; the other wells vary in depth from eight to 350 feet below land surface, and their yields range from 18 to 600 gallons per minute.

32. Applicant did not include on its Water Well Map at least one well used for human consumption that is within a half-mile of the proposed facility.

33. Applicant did not identify any characteristics of springs, seeps, or surface waters on the facility site, and there was evidence that those features exist on the property.

34. On Applicant's Site Map, a blue line indicates that water sits or travels between the flood control lake and Honey Creek.

35. It is unclear what serves as the source of water in the flood control lake.

36. There are underwater natural springs along Honey Creek, close to the bridge and the area where the proposed facility would be.

II. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over this matter, pursuant to TEX. WATER CODE ANN. (Code) Ch. 26.

2. SOAH has jurisdiction over all matters relating to the conduct of a hearing in this proceeding, including the preparation of a proposal for decision with findings of fact and conclusions of law, pursuant to TEX. GOV'T CODE Ch. 2003.

3. Applicant failed to provide sufficient evidence to demonstrate that the proposed facility, if approved and constructed, will maintain the quality of water in the state consistent with the public health and enjoyment. Code § 26.003.

4. A facility may not be located in an unsuitable or inappropriate area unless the facility's features will mitigate unsuitable site characteristics. 30 TEX. ADMIN. CODE (TAC) §§ 309.10(b); 309.12.

5. If a facility's treatment units are to be located within the 100-year flood plain, the project design must have satisfactory protective measures, such as levees or elevated treatment units, to protect against flooding. 30 TAC § 317.1(b)(4)(E)(i).

6. A wastewater treatment plant unit is any apparatus necessary for the purpose of providing treatment of wastewater. 30 TAC §309.11(9).

7. There was insufficient evidence to show that Applicant's facility would have design, construction, and operational features to mitigate the unsuitable site characteristics, such as the storage pond being in the 100-year flood plain. 30 TAC § 309.10(b).

8. Applicant has not demonstrated that the site it has selected for the facility will minimize possible contamination of ground and surface waters. 30 TAC § 309.10(b).

9. An applicant for a wastewater permit must provide information regarding all water wells and ponds within a half-mile radius of the disposal site, and if the information is available, the water uses for those wells. 30 TAC § 309.20(a)(4).

10. Based on the above findings of fact and conclusions of law, the application should be denied.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, THAT:

1. The application of the City of Weston for a domestic wastewater permit is DENIED.
2. Applicant shall pay 90 percent of the total transcription costs of $5,293.20; the Dowells, Ringleys, and McKees shall pay five percent, and Mr. Town shall pay five percent.
3. All other motions, requests for entry of specific findings of fact or conclusions of law submitted by any party and any other request for general or specific relief not expressly granted or adopted herein are denied for want of merit.
4. The Commission's Chief Clerk shall forward a copy of this Order to all parties.
5. If any provision, sentence, clause, or phrase of this Order is for any reason held invalid, the invalidity of such shall not affect the validity of the remaining portions of the Order.

ISSUED:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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Kathleen Hartnett White, Chairman
For the Commission