

TCEQ DOCKET NO. 2011-1814-UIC

APPLICATION BY	§	BEFORE THE
EL PASO WATER UTILITIES	§	TEXAS COMMISSION ON
FOR AN	§	ENVIRONMENTAL QUALITY
AQUIFER EXEMPTION	§	

Executive Director's Response to Hearing Requests

I. Introduction

The Executive Director of the Texas Commission on Environmental Quality (the TCEQ or Commission) files this Response to Hearing Requests on the application by El Paso Water Utilities (EPWU or Applicant) requesting approval of an aquifer exemption for portions of the subsurface formations that receive injected waste water from the Applicant's Class V Underground Injection Control (UIC) waste disposal wells. The proposed exemption extends over a rectangular area of 142 square miles, approximately 7.4 miles east to west and 19.2 miles north to south, in northeastern El Paso County. The exemption would apply to portions of the Fusselman, Montoya, and El Paso group. The exempted aquifer would have an aggregate thickness of 2,480 feet with a top ranging from 1,000 to 4,000 feet below ground. Mr. Juan Navar Sr. submitted a timely hearing request on behalf of Wonders of Ancient Cultures and Modern West, LLC. (Ancient Wonders, LLC). The Executive Director has provided a copy of this response to the requestor.

Attached for Commission consideration are the following:

- Attachment A – Technical Summary and Executive Director's Preliminary Decision
- Attachment B – Executive Director's Response to Public Comment (without attachments)
- Attachment C – Draft Aquifer Exemption Order
- Attachment D – Map depicting proposed aquifer exemption boundary and location of hearing requestor's property

II. Description of the Facility

El Paso Water Utilities (EPWU) currently operates a groundwater desalination plant for public water supply and uses Class V injection wells for the disposal of the desalination concentrate wastewater. The injection wells are located within the property of the Fort Bliss Military Reservation, approximately 22 miles northeast of the Kay Bailey Hutchinson Desalination Plant in northeastern El Paso County, Texas, and approximately 12 miles north of U.S. Highway 180. TCEQ Underground Injection Control (UIC) Class V Authorization No. 5X2700062 authorizes three constructed injection wells and two wells that have not been drilled. The authorization for the injection wells was approved in a previous application that was separate from the pending application for the aquifer exemption. EPWU has been operating these disposal wells since 2005.

III. Description of the Application

EPWU applied to the TCEQ for the designation of an exempt aquifer associated with their injection well operation. The approved aquifer exemption would enable EPWU to eliminate the step of diluting the desalination concentrate prior to disposal. If the aquifer exemption is granted, EPWU can request modification of its Class V injection well authorization, to increase the concentration of constituents in the desalination concentrate authorized for disposal (EPWU will also have to seek modification of the Class V authorization to remove authorization for one of the unconstructed injection wells). Desalination concentrate consists of salts and other constituents that have been removed from groundwater and concentrated by the desalination process. Presently, in order to meet concentration limits for injection well disposal of wastewater containing certain constituents that have been concentrated by the desalination process, EPWU dilutes the desalination concentrate with fresh water prior to disposal. The approval of the aquifer exemption and subsequent revision to the Class V injection well authorization will conserve the amount fresh water that will be available for drinking water.

Although the groundwater in the formation in which EPWU injects the desalination concentrate is not used for consumption, it is currently classified as an underground source of drinking water (USDW) because it contains groundwater with a

concentration of less than 10,000 milligrams per liter (mg/l) total dissolved solids. USDWs must be protected from injection well operation that would result in pollution of the water in the USDW. The designation of an exempt aquifer exemption would remove the receiving formations' status so that the aquifer would not be considered a USDW under the regulatory definition.

An aquifer exemption is not a permit that is granted to an applicant. Rather, an aquifer exemption is a designation that a certain aquifer, or portion of an aquifer, is not considered as a USDW under the UIC program requirements. The state criteria for exempting an aquifer from USDW protection requirements are provided in 30 TAC § 331.13. An aquifer or portion of an aquifer may be designated as an exempted aquifer if it does not currently serve as a source of drinking water for human consumption, and until the exempt status is removed, it will not serve in the future as a source of drinking water for human consumption. EPWU's application demonstrates that the aquifer does not currently and will not serve in the future as a source of drinking water because its depth and quality make recovery of water for drinking water purposes economically or technologically impractical. An aquifer proposed for exemption under the requirements of 30 TAC § 331.13 must be approved first by the TCEQ and then by the U.S. Environmental Protection Agency as a revision to the state's authorized UIC program before it is effective.

This application for an aquifer exemption is not subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

IV. Procedural Background

The application was received on August 21, 2008. Revisions to the application were received in April 2010 and April 2011. A combined Notice of Application and Preliminary Decision for an Aquifer Exemption and Notice of Public Meeting was issued by TCEQ on June 7, 2011. The notice was mailed to the application mailing list and published in English in *El Paso Times* newspaper on June 21, 28 and July 5, 2011. The notice was also published in Spanish in *El Diario* newspaper on June 21, 28, and July 5, 2011. A public meeting was conducted by TCEQ at the Tech H2O Center in El Paso on July 14, 2011. The public comment period and the period for filing a Request for a

Contested Case Hearing for this application ended on August 4, 2011. The Executive Director's Response to Public Comment was filed on September 30, 2011.

V. Evaluation of Requests for Contested Case Hearing

A request for a contested case hearing on an application for an Aquifer Exemption is considered under 30 TAC Chapter 55, Subchapter G, Requests for Contested Case hearing and Public Comments on Certain Applications. (30 TAC §55.250-55.256). Applications for an Aquifer Exemption are not subject to the Commission's House Bill 801 administrative and public participation procedures in 30 TAC Chapter 55, Subchapters E and F.

A. The Request

In determining whether to grant a request for a contested case hearing request for an application for an Aquifer Exemption, the Commission must determine whether a hearing request substantially complies with the following requirements of 30 TAC §55.251(c):

(1) give the name, address, and daytime telephone number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number and, where possible, fax number, who shall be responsible for receiving all official communications and documents for the group.

(2) identify the person's personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the activity that is the subject of the application and how and why the requestor believes he or she will be affected by the activity in a manner not common to members of the general public.

(3) request a contested case hearing; and

(4) provide any other information specified in the public notice of application.

B. Affected Person Determination

~~In determining whether to grant a request for a contested case hearing request~~
for an application for an Aquifer Exemption the Commission must determine whether the requestor is an affected person in accordance with 30 TAC §55.256.

For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest. (30 TAC §55.256(a)).

All relevant factors shall be considered, including, but not limited to, the following:

- (1) whether the interest claimed is one protected by the law under which the application will be considered;
- (2) distance restrictions or other limitations imposed by law on the affected interest;
- (3) whether a reasonable relationship exists between the interest claimed and the activity regulated;
- (4) likely impact of the regulated activity on the health, safety, and use of property of the person;
- (5) likely impact of the regulated activity on use of the impacted natural resource by the person; and
- (6) for governmental entities, their statutory authority over or interest in the issue relevant to the application.

VI. Analysis of the Request

A. The Request Substantially Complies with 30 TAC §55.251(c)(1), (3) and (4)

The Executive Director has analyzed the hearing request and determined that Ancient Wonders, LLC's request substantially complies with the procedural requirements for submitting a request for a contested case hearing. The period for timely filing a request for a contested case hearing on this application ended on August

4, 2011. The Office of the Chief Clerk received a public comment and hearing request from Ancient Wonders, LLC on July 14, 2011. The hearing request provided the requestor's names, address, phone number and specifically requested a contested case hearing. However, the Executive Director determined that Ancient Wonder LLC's request did not identify a personal justiciable interest as described below.

B. Ancient Wonders, LLC is not an affected person

The Executive Director analyzed the hearing request and determined that Ancient Wonders, LLC is not an affected person under 30 TAC § 55.256. The Executive Director contends that Ancient Wonders, LLC does not have a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. The Executive Director evaluated the factors listed under 30 TAC § 55.256(c):

1. The Executive Director asserts that the interests claimed by Ancient Wonders, LLC are not protected by the law under which the application will be considered. Ancient Wonders, LLC claims that it will be adversely affected by the injection of wastewater in the aquifers under its property and by the contamination of vegetation on its property from the upward migration of injected wastewater. The interests that Ancient Wonders seeks to protect may be germane to the authorization and regulation of EPWU's Class V injection wells, but are not considered under the requirements for designation of an exempted aquifer. An application for an Aquifer Exemption is considered under 30 TAC § 331.13. An Aquifer Exemption may be granted only if the aquifer or portion of an aquifer does not currently serve as a source of drinking water for human consumption and will not serve in the future as a source of drinking water. Ancient Wonders, LLC's interests in the groundwater in the aquifers under its property and the vegetation on its property are protected under the requirements for the Class V injection well authorization, which are not the subject of this application and for which there is no opportunity for contested case hearing under Commission rules.
2. There are no distance restrictions imposed by the law governing Aquifer Exemptions. Ancient Wonders LLC's property is located within the boundary of the proposed aquifer exemption.

3. The Executive Director contends that there is no “regulated activity” to evaluate under the factors listed in ~~30 TAC § 55.256(c)(3)-(5)~~. Because the aquifer exemption only removes the selected formations’ status as a USDW and does not authorize EPWU to conduct any activity, there are no interests of Ancient Wonders, LLC that are affected by an activity. EPWU’s injection activity is regulated under a separate authorization that is not before the commission in this proceeding. Therefore, the Executive Director argues that there is not a reasonable relationship between the interests claimed and the regulated activity and no likely impact on health, safety, use of property, or use of natural resources.

Alternatively, if the designation of the exempt aquifer is the “regulated activity” considered under § 55.256(c)(3)-(5), the Executive Director believes that a reasonable relationship does not exist between the interest claimed and the activity regulated. Ancient Wonders, LLC raises interests in protecting the aquifers under its property and the vegetation on its property from EPWU’s injection activity. The designation of the exempted aquifer reclassifies the regulatory status of specific geologic formations with respect to underground injection activity. By designating the formations as an exempt aquifer, the formations are no longer considered as an underground source of drinking water. The aquifer exemption is not a permit that is issued to EPWU and does not authorize EPWU to conduct any activity. It is the Class V injection well authorization by rule that authorizes EPWU to inject wastewater into the subsurface, but EPWU’s injection well authorization is not before the commission and is not subject to an opportunity for a contested case hearing.

The Executive Director further asserts that the approval of the aquifer exemption would not impact the health, safety, and use of Ancient Wonders, LLC’s property and would not likely impact Ancient Wonders, LLC’s use of natural resources. Ancient Wonders, LLC’s request claims an interest in preventing contamination of surface vegetation and contamination of potable water that currently exists in one or more aquifers under Ancient Wonders, LLC’s property. The request alleges that contamination could occur because individual aquifers in the proposed aquifer exemption area are not isolated from other aquifers in the proposed aquifer exemption area, that a network of cracks and crevices in the bedrock connect many of these

aquifers, that underground disposal by injection under pressure would result in movement of waste from the receiving aquifer to other aquifers in the proposed aquifer exemption area and to the surface where contaminated waste water would adversely affect vegetation. Ancient Wonders LLC's contentions appear to dispute whether the regulation of EPWU's injection wells is protective, rather than any of the aquifer exemption criteria.

The regulation of EPWU's injection wells provides redundant safeguards that are the basis of the TCEQ's UIC program. The purpose of the TCEQ's UIC program is to prevent underground injection that may pollute fresh water in accordance with the Texas Water Code Chapter 27 and TCEQ rules found in 30 TAC Chapter 331. EPWU's Class V authorization is subject to terms and conditions that are imposed to protect fresh water from pollution, including: siting requirements; limits on injected water quality, injection volume, injection rate, and injection pressure; construction requirements; monitoring and reporting requirements; mechanical integrity requirements; the depth of the injection zone; the presence of a thick sequence of low permeability rocks as a confining zone above the injection zone; and the design, construction, and monitoring of the injection wells. These requirements are addressed in EPWU's Class V injection well authorization but are not addressed in the pending application for an aquifer exemption.

C. Conclusion

The Executive Director's analysis of Ancient Wonders, LLC's hearing request indicates that Ancient Wonders, LLC is not an affected person in accordance with 30 TAC § 55.256. The Executive Director finds that Ancient Wonders, LLC does not have a personal justiciable interest in the Application. All of the contentions raised by Ancient Wonders, LLC appear to address the authorization for EPWU's Class V injection wells, which are not addressed in this application and are not subject to an opportunity for a contested case hearing; thus, Ancient Wonders, LLC's interests are not justiciable in this proceeding.

VII. Executive Director's Recommendation

The Executive Director recommends that the Commission find that Wonders of Ancient Cultures and Modern West, LLC is not an affected person and deny the hearing request.

Respectfully submitted,

Texas Commission on Environmental Quality

Mark R. Vickery, P.G.
Executive Director

Robert Martinez, Director
Environmental Law Division

By Don Redmond
Don Redmond, Attorney
Environmental Law Division
State Bar No. 24010336
P. O. Box 13087, MC 173
Austin, Texas 78711-3087
Phone: 512.239.0612

By Diane Goss
Diane Goss, Staff Attorney
Environmental Law Division
State Bar No. 24050678
P.O. Box 13087, MC 173
Austin, Texas 78711-3087
(512) 239-5731

REPRESENTING THE EXECUTIVE
DIRECTOR OF THE TEXAS COMMISSION
ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on November 14, 2011, the original and seven copies of the "Executive Director's Response to Hearing Requests" for an Application by El Paso Water Utilities for an Aquifer Exemption were filed with the TCEQ's Office of the Chief Clerk and a complete copy was served to all persons listed on the attached mailing list.



Don Redmond, Staff Attorney
Environmental Law Division

MAILING LIST
EL Paso Water Utilities Public Service Board
Docket No. 2011-1814-UIC; Authorization No. 5X2700062

FOR THE APPLICANT

Mr. Edmund G. Archuleta
El Paso Water Utilities
1154 Hawkins Blvd.
El Paso, Texas 79925
Tel: (915) 594-5501
Fax: (915) 594-5666

THE REQUESTOR

Mr. Juan M. Navar, Sr.
Wonders of Ancient Cultures
and Modern West LLC
10828 Sombra Verde Dr
El Paso, Texas 79935-3623

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

FOR THE EXECUTIVE DIRECTOR

Don Redmond, Staff Attorney,
Environmental Law Division (MC-173)
Phone: (512) 239-0612
Fax: (512) 239-0606

FOR THE OFFICE OF THE PUBLIC
INTEREST COUNSEL

Blas Coy, Attorney, Office of the Public
Interest Counsel (MC-103)
Phone: (512) 239-6363; Fax: (512) 239-
6377

FOR THE OFFICE OF THE CHIEF
CLERK

Bridget C. Bohac, Chief Clerk (MC-105)
Phone: (512) 239-3300; Fax: (512)
239-3311

ATTACHMENT A

Description of Application

Applicant: El Paso Water Utilities (EPWU)

Location: The requested aquifer exemption is for EPWU's Class V injection well facility associated with the Kay Bailey Hutchinson Desalination Plant in El Paso County. The injection well facility is located within the property of Fort Bliss Military Reservation, approximately 22 miles northeast of the Kay Bailey Hutchinson Desalination Plant in El Paso County, Texas, and approximately 12 miles north of U.S. Highway 180, at approximate latitude 31° 59' 15" North and longitude 106° 06' 43" West. The proposed exemption extends over a rectangular area of 115 square miles, approximately 5.98 miles east to west and 19.2 miles north to south, in northeastern El Paso County. The exemption would apply to portions of the Fusselman Formation, Montoya Group, and El Paso Group (hereinafter referred to as the Fusselman, Montoya, and El Paso group). The exempted aquifer would have an aggregate thickness of 2,480 feet with a top ranging from 1,000 to 4,000 feet below ground.

General: The applicant currently operates a groundwater desalination plant for public water supply, with injection wells for safe management and disposal of the resulting desalination concentrate wastewater. The application requests approval of an aquifer exemption for portions of the subsurface formations that will contain the injected waste water.

Request: By application on August 21, 2008, EPWU requested Texas Commission on Environmental Quality (TCEQ) and U.S. Environmental Protection Agency (EPA) approval of an aquifer exemption. The aquifer exemption was requested to provide a basis for removal of present quality control specifications that require the use of fresh water to dilute the desalination concentrate stream to meet all drinking water standards including arsenic and certain radionuclides. Currently, the dilution of desalination concentrate must occur prior to its injection into the Fusselman, Montoya, and El Paso group. With such exemption, EPWU's Class V well authorization could be amended to remove these existing quality control specifications. By allowing EPWU to inject undiluted concentrate, the quantity of freshwater currently used for dilution can be conserved for drinking water. Under an amended well authorization, EPWU would still be required to ensure protection of ground water in the portions of the Fusselman, Montoya, and El Paso group and any other formations outside the exempted aquifer which contain less than 10,000 mg/L in total dissolved solids.

Authority: Authority, criteria, and procedures for aquifer exemptions are provided by 40 CFR Sections (§§) 144.7, 145.32 and 146.4 and 30 Texas Administrative Code (TAC) § 331.13.

Technical Information

The proposed aquifer exemption is requested by EPWU for its authorized Class V injection wells for desalination concentrate disposal under well authorization number 5X2700062. The wells were authorized by TCEQ on July 13, 2005. The portion of the subsurface for which the aquifer exemption is sought is the Fusselman, Montoya, and El Paso group approximately 2,480 feet in thickness, the top of which ranges from 1,000 to 4,000 feet below ground level, over an rectangular area defined by corners with coordinates: latitude 32° 00' 13.38" North, longitude 106° 11' 49.28" West; latitude 31° 43' 30.00" North, longitude 106° 11' 49.28" West; latitude 31° 43' 30.00" North, longitude 106° 05' 42.12" West; and latitude 32° 00' 12.74" North, longitude 106° 05' 42.12" West.

TCEQ rules at 30 TAC § 331.2 (107) define an aquifer or portion of an aquifer that supplies drinking water for human consumption, or in which the groundwater contains fewer than 10,000 mg/l TDS and which is not an exempted aquifer as an underground source of drinking water (USDW). USDWs must be protected from injection well operation that would result in pollution of the water in the USDW (30 TAC § 331.2 (107) and § 331.5). The state criteria for exempting an aquifer from USDW protection requirements are provided in 30 TAC § 331.13. An aquifer or portion of an aquifer may be designated as an exempted aquifer, if it does not presently serve as a source of drinking water for human consumption and until the exempt status is removed, it will not serve in the future as a source of drinking water for human consumption because of certain conditions identified in 30 TAC § 331.13 (c)(2). Of the conditions identified in this section of rules, the one satisfied by the aquifer proposed for exemption by EPWU is its depth (§ 331.13 (c)(2)(B)), making recovery of water for drinking water purposes economically or technologically impractical.

EPWU conducted a search of the state public water supply databases (TCEQ Public Drinking Water Section and New Mexico Environmental Department Drinking Water Bureau), water well records (driller's logs), public sources of data, and an on-the-ground site survey. These searches revealed that there are no public water supply systems utilizing the aquifer proposed for exemption as a source of drinking water in Texas or New Mexico. The searches also indicated that the aquifer has not been nor is currently utilized as a domestic, agriculture, or industrial supply of water. Data presented in EPWU's application also reveals that water in the aquifer proposed for exemption has a high concentration of radionuclides (gross alpha ranges from 412 to 774 pCi/l and Radium²²⁶⁺²²⁸ is approximately 19 pCi/l) and total dissolved solids (approximately 8,800 mg/l) that would require treatment before use as drinking water. Alternate sources of drinking water are available in the El Paso region that are of better quality and significantly lower production cost. Economic analysis provided in EPWU's application indicates an approximate production (pumping and treatment) cost of \$3000 per acre-foot of water, in contrast with production costs ranging from \$300 to \$1400 per acre-foot for alternate sources of drinking water in the region.

A proposal for aquifer exemption that qualifies under the requirements of 30 TAC § 331.13 must be approved by the TCEQ and finally by the U. S. Environmental Protection Agency

(EPA) as a revision to the state's authorized Underground Injection Control program before it is effective. An aquifer exemption is not something granted to a well operator, but rather is a legal designation as part of the state's federally approved UIC Program.

Process for Reaching a Final Decision and Opportunities for Public Participation

The proposed aquifer exemption application will be sent to the Office of the Chief Clerk for public notice. Mailed and newspaper notice of the application and executive director's preliminary decision are provided in accordance with 30 TAC §39.655 with instructions for submitting public comments, requesting a public meeting, and requesting a contested case hearing. Written public comments, requests for a public meeting, and requests for a contested case hearing must be submitted to the Office of the Chief Clerk within 30 days from the date of publication of the newspaper notice.

The executive director will consider public comments in making a final decision on this application. The TCEQ will hold a public meeting on Thursday, July 14, 2011, 7:00 p.m., at the Tech H2O Center, 10751 Montana Ave., El Paso, Texas 79935. After the deadline for submitting public comments and hearing requests, the executive director will consider the comments and prepare a response to all relevant and material or significant public comments.

The TCEQ may hold a contested case hearing on the aquifer exemption. A contested case hearing is a legal proceeding similar to a civil trial in a state district court. The TCEQ may grant a contested case hearing on this application if a written hearing request is filed within 30 days from the date of newspaper publication of this notice.

The public notice should include the following language:

"To request a contested case hearing, you must include the following items in your request: your name; address, phone; applicant's name and permit number; the location and distance of your property/activities relative to the facility or activity; a specific description of how you would be adversely affected by the application in a way not common to the general public; and the statement "[I/we] request a contested case hearing."

If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify an individual member of the group who would be adversely affected by the application or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose."

Following the close of all applicable comment and request periods, the Executive Director

will forward the application and any requests for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If hearing requests are granted, the hearings will be conducted by the State Office of Administrative Hearings. Decisions regarding the Aquifer Exemption may be reconsidered in response to a Motion for Rehearing or a Motion for Reconsideration and by appeal to a District Court in Travis County.

The Executive Director may issue approval of the application for the Commission unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue such approval of the aquifer exemption and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

Preliminary Decision

The executive director has made a preliminary decision that the proposed aquifer exemption meets all statutory and regulatory requirements. If approved by the commission, the executive director will request EPA's approval of the aquifer exemption. No designation of an exempted aquifer shall be final until approved by the EPA.

Prepared by:

David H. Murray, P.G. *for B.S.*
Bryan Smith, Geologist, P.G.
UIC Permits Team
Radioactive Materials Division

Reviewed by:

Ben Knape
Ben Knape, P.G., Team Leader
UIC Permits Team
Radioactive Materials Division

ATTACHMENT B

APPLICATION BY EL PASO	§	BEFORE THE
WATER UTILITIES	§	TEXAS COMMISSION
FOR AQUIFER EXEMPTION	§	ON ENVIRONMENTAL
5X2700062	§	QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment received on the application by El Paso Water Utilities, (Applicant or EPWU) for an aquifer exemption related to Underground Injection Control (UIC) Authorization No. 5X2700062 (referred to herein as the application).

As required by Title 30 Texas Administrative Code (TAC), Section 55.253, before an application is approved, the Executive Director prepares a response (RTC) to all timely, relevant and material, or significant comments received during the comment period. This RTC addresses all timely public comments received, whether or not withdrawn. If you need more information about this application please call the TCEQ's Public Education Program at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.tx.gov. TCEQ's Office of the Chief Clerk received timely comments on the application from Mr. Juan Navar Sr., on behalf of Wonders of Ancient Cultures and Modern West, LLC. (Ancient Wonders, LLC), U.S. Representative Silvestre Reyes and Texas State Representative Chente Quintanilla.

BACKGROUND

Description of Facility

El Paso Water Utilities (EPWU) currently operates a groundwater desalination plant for public water supply and uses Class V injection wells for the disposal of the desalination concentrate wastewater. The injection wells are located within the property of the Fort Bliss Military Reservation, approximately 22 miles northeast of the Kay Bailey Hutchinson Desalination Plant in northeastern El Paso County, Texas, and approximately 12 miles north of U.S. Highway 180. TCEQ Underground Injection Control (UIC) Class V Authorization No. 5X2700062 authorizes three constructed injection wells and a fourth well that has not been drilled. EPWU has been operating these disposal wells since 2005. EPWU applied to the TCEQ for the designation of an exempt aquifer associated with their injection well operation.

Aquifer Exemption Application

An aquifer exemption is not a permit that is granted to an applicant. Rather, an aquifer exemption is a designation that a certain aquifer, or portion of an aquifer, is not considered as an underground source of drinking water (USDW) under the UIC program requirements. The approved aquifer exemption would enable EPWU to eliminate the step of diluting the desalination concentrate prior to disposal. If the

aquifer exemption is granted, EPWU can request modification of its Class V injection well authorization, to increase the concentration of constituents in the desalination concentrate authorized for disposal. Desalination concentrate consists of salts and other constituents that have been removed from groundwater and concentrated by the desalination process. Presently, in order to meet concentration limits for injection well disposal of wastewater containing certain constituents that have been concentrated by the desalination process, EPWU dilutes the desalination concentrate with fresh water prior to disposal. The approval of the aquifer exemption and subsequent revision to the Class V injection well authorization will conserve the amount fresh water that will be available for drinking water.

Although the groundwater in the formation in which EPWU injects the desalination concentrate is not used for consumption, it is currently classified as a USDW because it contains groundwater with a concentration of less than 10,000 milligrams per liter (mg/l) total dissolved solids. USDWs must be protected from injection well operation that would result in pollution of the water in the USDW. The designation of an exempt aquifer exemption would remove the receiving formations' status so that the aquifer would not be considered a USDW under the regulatory definition.

The state criteria for exempting an aquifer from USDW protection requirements are provided in 30 TAC § 331.13. An aquifer or portion of an aquifer may be designated as an exempted aquifer if it does not currently serve as a source of drinking water for human consumption, and until the exempt status is removed, it will not serve in the future as a source of drinking water for human consumption. EPWU's application demonstrates that the aquifer does not currently and will not serve in the future as a source of drinking water because its depth and quality make recovery of water for drinking water purposes economically or technologically impractical. An aquifer proposed for exemption under the requirements of 30 TAC § 331.13 must be approved first by the TCEQ and then by the U.S. Environmental Protection Agency (EPA) as a revision to the state's authorized UIC program before it is effective.

The proposed aquifer exemption extends over a rectangular area of 115 square miles, approximately 5.98 miles east to west and 19.2 miles north to south, in northeastern El Paso County. The subsurface formations for which the aquifer exemption is sought include the Fusselman, Montoya, and El Paso group approximately 2,480 feet in thickness, the top of which ranges from 1,000 to 4,000 feet below ground level.

Procedural Background

The application was received on August 21, 2008. Revisions to the application were received in April 2010 and April 2011. A combined Notice of Application and Preliminary Decision for an Aquifer Exemption and Notice of Public Meeting was issued by TCEQ on June 7, 2011. The notice was mailed to the application mailing list and newspaper published in English in the *El Paso Times* on June 21, 28 and July 5, 2011. The notice was also newspaper published in Spanish in *El Diario* on June 21, 28, and July 5, 2011. A public meeting was conducted by TCEQ at the Tech H2O Center in El Paso on July 14, 2011. The public comment period for the application ended on August 4, 2011.

This application is not subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

Access to Rules, Laws and Records

TCEQ rules are available at the Texas Secretary of State website:

<http://www.sos.state.tx.us>

Texas Statutes are available at the Texas Constitution and Statutes website:

<http://www.statutes.legis.state.tx.us/Index.aspx>

Other useful information is available at the TCEQ Website:

<http://www.tceq.texas.gov/>

COMMENTS AND RESPONSES

COMMENT No. 1:

Mr. Juan Navar, Sr. commented that Ancient Wonders, LLC, and other adjacent landowners would be adversely affected because injected water will contaminate potable water that currently exists in one or more aquifers under Ancient Wonders, LLC's property.

RESPONSE No. 1:

For clarification, this comment may refer to continued operation of EPWU's authorized Class V waste disposal injection wells. The Executive Director is not reviewing an application or considering public comments regarding EPWU's present or continued Class V waste disposal operation. Class V injection wells are authorized by rule. Applications for Class V injection wells, authorized by rule, are not subject to public notice and comment requirements. The application under review is EPWU's application for an aquifer exemption.

An aquifer or a portion of an aquifer may be designated as an exempted aquifer if it does not currently serve as a source of drinking water for human consumption and it will not serve as a source of drinking water for human consumption in the future because it is situated at a depth or a location which makes recovery of water for drinking purposes economically or technically impractical or it is so contaminated that it would be economically or technically impractical to render that water fit for human consumption in accordance with 30 TAC §331.13.

The application demonstrates that the groundwater in the proposed exempted aquifer is not currently being used for drinking water. EPWU conducted a search of the state public water supply databases (TCEQ Public Drinking Water Section and New Mexico Environmental Department Drinking Water Bureau), water well records (driller's logs), public sources of data, and conducted an on-the-ground site survey. The application indicates that these searches and survey concluded that no public water supply systems in Texas or New Mexico utilize the aquifer proposed for exemption as a source of drinking water and that the aquifer has not been and is not currently utilized as a domestic, agriculture, or industrial supply of water.

The application demonstrates that the groundwater in the proposed exempted area will not be used for drinking water in the future because it is situated at a depth and location which makes recovery of water for drinking water purposes economically or technically impractical to render the water fit for human consumption. Data presented in the application also indicate that water in the aquifer proposed for exemption has a high concentration of radionuclides (gross alpha radiation concentration ranges from 412 to 774 picocuries per liter (pCi/l) and combined radium-226 and radium-228 concentration is approximately 19 pCi/l) and total dissolved solids (approximately 8,800 mg/l). These naturally-occurring concentrations would require treatment before use as drinking water. The application includes an economic analysis that indicates an approximate production (pumping and treatment) cost of \$3,000 per acre-foot of water in the exempted formations, in contrast with production costs ranging from \$300 to \$1,400 per acre-foot for alternate sources of drinking water in the region. Alternate sources of drinking water are available in the El Paso region that are of better quality with significantly lower production cost.

Because this comment may refer to continued operation of EPWU's authorized Class V waste disposal injection wells, the Executive Director is including here a description of the redundant safeguards that are the basis of the TCEQ's UIC program. The purpose of the TCEQ's UIC program is to prevent underground injection that may pollute fresh water in accordance with the Texas Water Code Chapter 27 and TCEQ rules found in 30 TAC Chapter 331. EPWU's Class V authorization is subject to terms and conditions that are imposed to protect fresh water from pollution, including: siting requirements; limits on injected water quality, injection volume, injection rate, and injection pressure; construction requirements; monitoring and reporting requirements; mechanical integrity requirements; the depth of the injection zone; the presence of a thick sequence of low permeability rocks as a confining zone above the injection zone; and the design, construction, and monitoring of the injection wells.

The Executive Director has reviewed the application and determined that it satisfies the requirement that the aquifer or portion of aquifer proposed to be exempted does not currently and will not in the future serve as a source of drinking water for human consumption.

COMMENT No. 2:

Mr. Juan Navar Sr. commented that a study by the University of Texas System (UT) study found a vast network of underground caverns and cracks in the bedrock that connect many of the aquifers and that aquifers in the area of the proposed aquifer exemption are not completely isolated from other aquifers in the area. Mr. Navar commented further that the UT study found that if contaminated water is injected under pressure into one aquifer, the contaminated water would be forced through the network of caverns and cracks into many nearby aquifers.

RESPONSE No. 2:

For clarification, this comment may refer to continued operation of EPWU's authorized Class V waste disposal injection wells. The Executive Director is not reviewing an

application or considering public comments regarding EPWU's present or continued Class V waste disposal operation. The application under review is EPWU's application for an aquifer exemption.

The application indicates that the Class V injection wells are sited to ensure that a confining zone with sufficient thickness overlies the injection zone where the fluids are injected in the proposed exempted aquifer.

EPWU is not authorized to inject into the sited Class V wells under pressure. EPWU's UIC Class V Authorization No. 5X2700062 authorizes an injection pressure of zero pounds per square inch (0 psi), meaning that the injection is not under pressure and is limited to gravity-feed. Please see the additional safeguards for fresh water supplies that are the basis of the TCEQ's UIC regulatory requirements described under Response No. 1 above. The Executive Director has not reviewed the UT study and has been unable to locate the referenced study.

The Executive Director has reviewed the application in accordance with the applicable rules and determined that it appropriately describes vertical confinement of the proposed exempted aquifer.

COMMENT No. 3:

Mr. Juan Navar Sr. commented that the ground is porous in the area and that contaminated water would possibly rise to the surface adversely affecting vegetation. Mr. Navar further commented that the high pressure injection proposed would increase the likeliness of contaminated water rising to the surface and adversely affecting vegetation.

RESPONSE No. 3:

For clarification, this comment may refer to continued operation of EPWU's authorized Class V waste disposal injection wells. The Executive Director is not reviewing an application or considering public comments regarding EPWU's present or continued Class V waste disposal operation. The application under review is EPWU's application for an aquifer exemption.

The application indicates that the top of the proposed exempted aquifer ranges from 1,000 to 4,000 feet below ground level and is 2,480 feet thick. The authorized Class V injection wells are sited to ensure that a confining zone with sufficient thickness overlies the injection zone where the fluids are injected. The application indicates that surface deposits within the area of the requested aquifer exemption are composed mainly of unconsolidated sand and silt, with some clay. These deposits are porous and would allow downward infiltration from the surface into subsurface units. However, the surface deposits are separated from the injection zone by layers of the confining zone, including the low permeability rocks of the Canutillo Formation and the Percha Shale. Therefore, the injected fluids, which are not injected under pressure, are effectively isolated by the low-permeability confining formation above the injection zone. Redundant safeguards incorporated into the TCEQ UIC regulations are designed to eliminate the potential for injected fluids to rise through the subsurface formations and

contaminate surface water or impact surface vegetation. Please see the description of these UIC safeguards under Response No. 1 above.

The Executive Director has reviewed the application in accordance with the requirements and determined that it appropriately describes the subsurface depth or elevation and thickness of the proposed exempted aquifer and that it appropriately describes vertical confinement of the proposed exempted aquifer.

COMMENT No. 4:

Mr. Juan Navar Sr. recommends denial of the application.

RESPONSE No. 4:

The Executive Director reviewed the application and determined that it meets the requirements of 30 TAC § 331.13 for the proposed designation of an exempted aquifer.

COMMENT NO. 5:

U.S. Representative Silvestre Reyes and Texas State Representative Chente Quintanilla expressed support for the approval of the aquifer exemption application.

Response No. 5:

The Executive Director acknowledges these comments supporting the application

COMMENT No. 6:

Mr. Juan Navar Sr. requests a contested case hearing on the application on behalf of Ancient Wonders, LLC.

RESPONSE No. 6:

Timely filed requests for a contested case hearing, that are not withdrawn, will be considered by the commission in accordance with 30 TAC §§55.254 and 55.255. The requestor(s) will be notified in writing when the request is scheduled for consideration. The TCEQ Commissioners will consider any such requests during a regularly scheduled Commission meeting that is open to the public, and make a determination as to whether or not the request will be granted. If a request is granted, the matter will be referred to the State Office of Administrative Hearings for a formal, legal proceeding, conducted in a manner similar to civil trials in state district court.

CHANGES MADE IN RESPONSE TO COMMENT

No changes to the draft aquifer exemption order have been made in response to public comment.

Respectfully submitted,
Texas Commission on Environmental Quality

Mark R. Vickery, P.G.
Executive Director

Robert Martinez, Director
Environmental Law Division

By Don Redmond
Don Redmond, Attorney
Environmental Law Division
State Bar No. 24010336
P. O. Box 13087, MC 173
Austin, Texas 78711-3087
Phone: 512.239.0612

By Diane Goss
Diane Goss, Staff Attorney
Environmental Law Division
State Bar No. 24050678
P.O. Box 13087, MC 173
Austin, Texas 78711-3087
(512) 239-5731

REPRESENTING THE
EXECUTIVE DIRECTOR OF THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

ATTACHMENT C

TCEQ DOCKET NO. 2011-1814-UIC

APPLICATION BY EL PASO WATER UTILITIES FOR AN AQUIFER EXEMPTION §
§
§

BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AQUIFER EXEMPTION ORDER

The Texas Commission on Environmental Quality (TCEQ) finds that:

1. On August 21, 2008, El Paso Water Utilities (EPWU) submitted an application to request designation of an exempted aquifer under 30 TAC Section 331.13.
2. The aquifer requested to be exempted consists of a portion of the Fusselman Formation, Montoya Group, and El Paso Group (hereinafter referred to as the Fusselman, Montoya, and El Paso group) with a combined thickness of approximately 2,480 feet and a top ranging from approximately 1,000 to 4,000 feet below ground as depicted in Figure 18 of the application providing a structure map on the top of the Fusselman. The area of the proposed exempt aquifer is a rectangle of approximately 115 square miles, extending approximately 19.2 miles from north to south and 5.98 miles from east to west and is located in El Paso County. The northwest corner of the proposed exempt aquifer is located at latitude 32° 00' 13.38" N, longitude 106° 11' 49.28" W; the southwest corner is located at latitude 31° 43' 30.00" N, longitude 106° 11' 49.28" W; the southeast corner at latitude 31° 43' 30.00" N, longitude 106° 05' 42.12" W; and the northeast corner at latitude 32° 00' 12.74" N, longitude 106° 05' 42.12" W. Maps depicting the exempted aquifer area are attached.
3. The groundwater in the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 contains a concentration of up to 8,800 mg/l total dissolved solids (TDS). Because the groundwater TDS concentration is less than 10,000 mg/l, according to 30 TEX. ADMIN. CODE §§ 331.2 and 331.13, this portion of the Fusselman, Montoya, and El Paso group is considered an underground source of drinking water unless it is designated an exempted aquifer.
4. EPWU currently operates a groundwater desalination plant for public water supply, with injection wells for safe management and disposal of the resulting desalination concentrate wastewater. EPWU requests the designation of the exempted aquifer in conjunction with the use of injection wells authorized under TCEQ Authorization No. 5X2700062 for injection of desalination concentrate that does not meet all primary and secondary drinking water standards.
5. The Class V injection wells associated with the proposed aquifer exemption were authorized by TCEQ on July 13, 2005 and are located on Fort Bliss Military Reservation approximately twelve miles north of State Highway 180 and 22 miles northeast of the Kay Bailey Hutchinson Desalination Plant in El Paso County, Texas. The Class V injection wells are located as follows: the well designated as JDF-1 at latitude 31° 59' 49" N, longitude 106° 06' 25" W; the well designated as JDF-2 at latitude 31° 58' 24" N, longitude 106° 06' 30" W; the well designated as JDF-3 at latitude 31° 59' 15" N, longitude 106° 06' 43" W; the well designated as JDF-4 at latitude 31° 59' 55" N, longitude 106° 07' 45" W; and the well designated as JDF-5 at latitude 31° 59' 13" N, longitude 106° 06' 05" W.

6. An exempted aquifer is an aquifer or a portion of an aquifer which meets the criteria for fresh water but has been designated an exempted aquifer by the commission after notice and opportunity for hearing.
7. An aquifer or portion of an aquifer may be designated as an exempted aquifer if the following criteria are met:
 - (1) It does not currently serve as a source of drinking water for human consumption; and
 - (2) Until exempt status is removed according to 30 TAC §331.13(f), it will not in the future serve as a source for human consumption because:
 - (A) It is mineral, hydrocarbon or geothermal energy bearing with production capability;
 - (B) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technically impractical;
 - (C) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or,
 - (D) It is located above a Class III well mining area subject to subsidence or catastrophic collapse.
8. EPWU has demonstrated that the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 is not currently, nor has ever been, a source of drinking water for human consumption by conducting a data search and a ground investigation that showed that there are no water wells that withdraw water used for human consumption within the exempted aquifer.
9. EPWU has demonstrated that the portion of the Fusselman, Montoya, and El Paso group described in Finding #2 is situated at a depth (1,000 to 4,000 feet at top) which makes recovery of water for drinking water purposes economically or technically impractical.
10. The TCEQ also notes that water samples taken from the Fusselman, Montoya, and El Paso group exhibit a high concentration of certain radionuclides (gross alpha and radium 226 & 228).
11. Notice of the aquifer exemption was issued June 7, 2011, published in the *El Paso Times* on June 21, 28 and July 5, 2011 and *El Diario* on June 21, 28, and July 5, 2011, and mailed to the same recipients required for notice of an injection well permit application.
12. The notice described the process for submitting comments and requesting a hearing on the aquifer exemption.
13. A public meeting was held on Thursday, July 14, 2011, 7:00 p.m., at Tech H2O Center, 10751 Montana Ave., El Paso, Texas 79935.

14. The Executive Director of the Texas Commission on Environmental Quality provided a response to all timely, relevant and material, or significant public comments on the application.

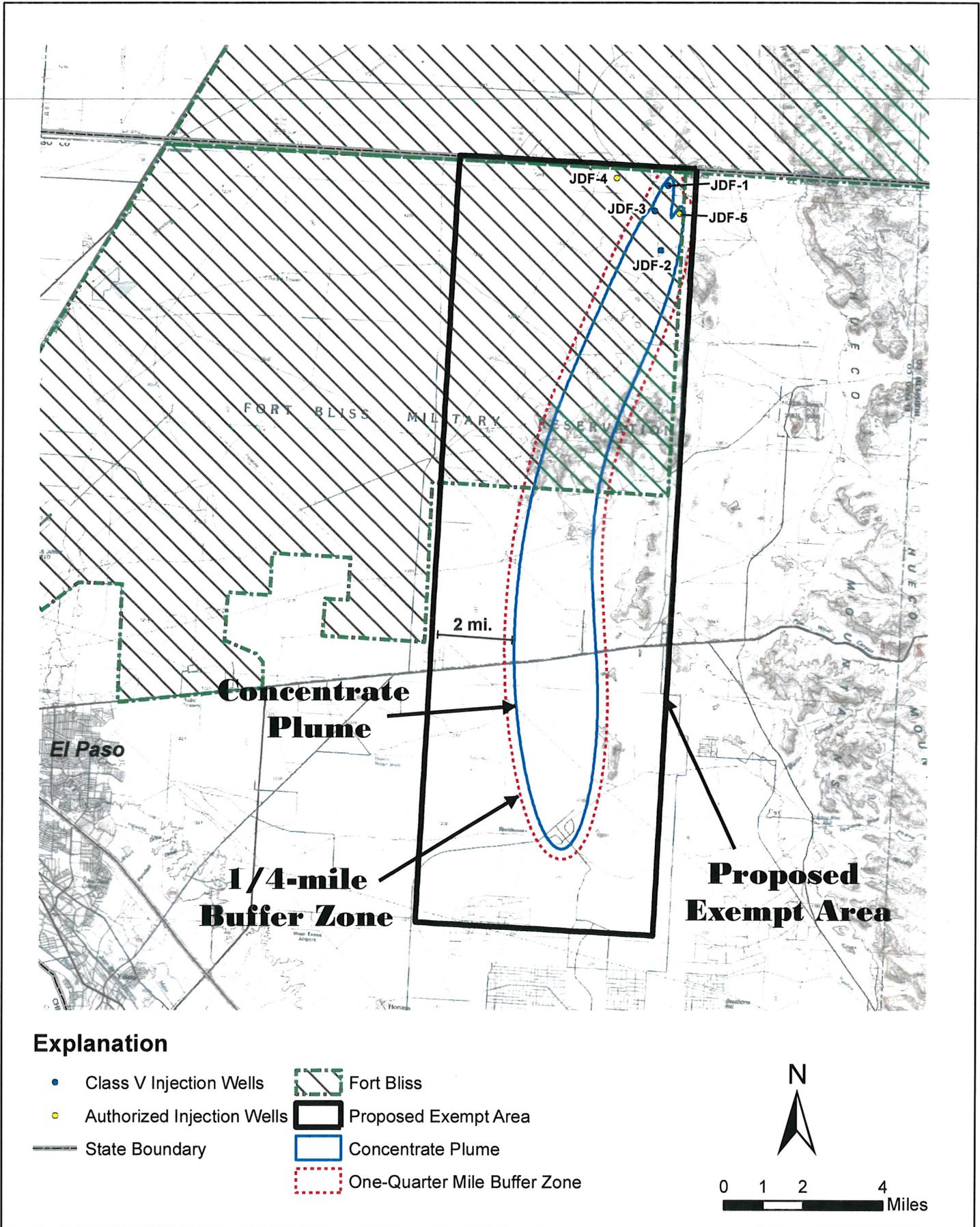
Now, therefore, be it ordered by the Texas Commission on Environmental Quality that:

1. The portion of the Fusselman, Montoya, and El Paso group described in Finding #2 be designated as an exempted aquifer under 30 TAC § 331.13(c);
2. The Executive Director of the Texas Commission on Environmental Quality submit a program revision to the United States Environmental Protection Agency (EPA) under 40 CFR §§ 144.7, 146.4, and 145.32 to reflect this aquifer exemption designation for the Underground Injection Control program for the State of Texas; and
3. No designation of an exempted aquifer shall be final until approved by the EPA as part of the delegated Underground Injection Control Program.

Issue Date:

Texas Commission on
Environmental Quality

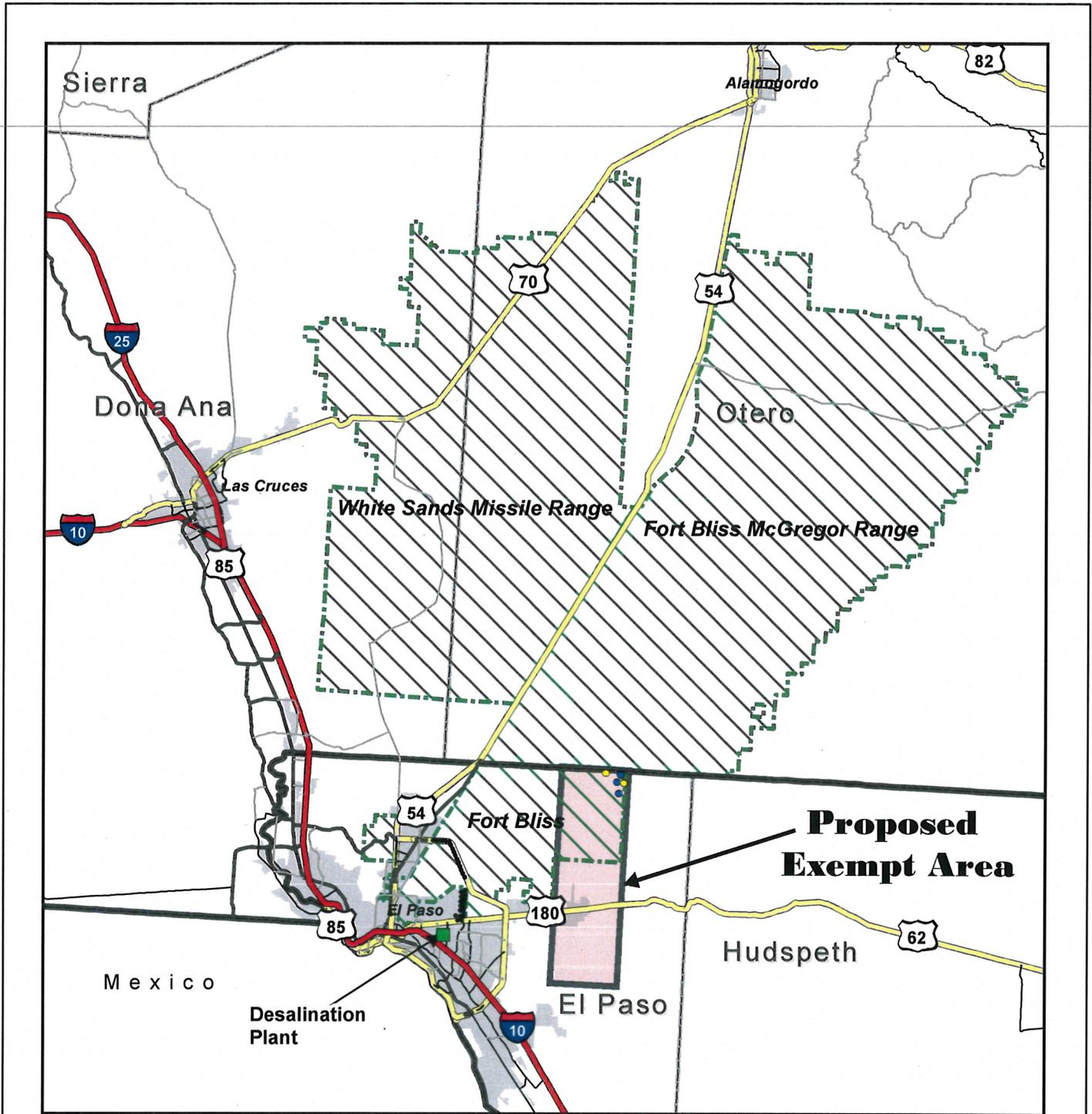
Bryan Shaw, Ph.D.
Chairman



PROPOSED EXEMPT AREA

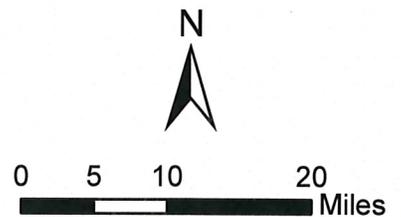
FIGURE 2





Explanation

- Authorized Injection Wells
- Class V Injection Wells
- Production Wells
- State Boundary
- ▨ Fort Bliss
- ▨ Urban Areas
- ▨ Counties
- ▨ Proposed Exempt Area



GENERAL LOCATION MAP

FIGURE 1



ATTACHMENT D

El Paso Water Utilities Application for an Aquifer Exemption

Map Requested by TCEQ Office of Legal Services for Commissioners' Agenda, December 7, 2011



Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087

November 1, 2011

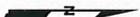


Projection: Texas Statewide Mapping System (TSMSS)
Scale: 1:183,620

- Legend**
- Injection Wells

Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information from the applicant and the requester information from the requester. The vector data are U.S. Census Bureau 1992 TIGER/Line Data (1:100,000). The background of this map is a one-half meter photograph from the 2008 Texas Orthoregistry Project.

This map depicts the following:
(1) The location of the wells. This is labeled "Injection Wells".



The facility is located in El Paso County. The red polygon in the first inset map represents the approximate location of the area. The second inset map represents the location of El Paso County in the state of Texas. El Paso County is shaded in red.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.

AMcDonough CR-358593