

**STATE OF NEW MEXICO  
COUNTY OF SANTA FE  
FIRST JUDICIAL DISTRICT**

**ENDORSED**  
First Judicial District Court

2004 AUG 20 10:00

Santa Fe, Rio Arriba &  
Los Alamos Counties  
PO Box 2268  
Santa Fe, NM 87504-2268

SANTA FE BASIN WATER ASSOCIATION  
and DIANE STREEPER,

Protestants-Appellants,

vs.

No. D-0101-CV-2004-02038

CITY OF SANTA FE,

Applicant-Appellee,

and

NEW MEXICO STATE ENGINEER,

Appellee.

**JOINT MOTION FOR APPROVAL OF SETTLEMENT AGREEMENT,  
REMAND TO THE STATE ENGINEER AND  
FOR DISMISSAL OF THIS ACTION WITH PREJUDICE**

COME NOW the City of Santa Fe, ("City"), the New Mexico State Engineer, ("State Engineer") and Santa Fe Basin Water Association and Diane Streeper, ("Protestants"), and hereby respectfully request an order of the Court approving the settlement agreement set forth below, (the "Settlement Agreement"), remanding the case to the New Mexico State Engineer for further action consistent with the Settlement Agreement and the Order of this Court, and for dismissal, with prejudice, of this District Court appeal. As grounds therefore, the parties state the following:

1. On June 26, 2002, the City of Santa Fe filed Applications Nos. RG-20516-S-10 through RG-20516-S-13 for permits for supplemental wells in the Rio Grande Underground Water Basin in New Mexico for the continued diversion of up to 10,000 acre feet per year of groundwater authorized under State Engineer Permit No. RG-20516 et al., granted on December

30, 1976, (the “Buckman Permit”), for municipal purposes within the County of Santa Fe, New Mexico.

2. Applications Nos. RG-20516-S-10 through RG-20516-S-13 were protested and an administrative hearing was held on November 19 and 20, 2003, at which the City, the State Engineer and the Protestants appeared and were represented by counsel.

3. A Report and Recommendation of the Hearing Examiner was submitted to the State Engineer on September 10, 2004, and the State Engineer accepted and adopted the report and recommendation of the Hearing Examiner and approved the City’s applications with certain conditions.

4. Pursuant to law, Protestants initiated this action as a *de novo* appeal to District Court from the decision of the State Engineer.

5. After the filing of this appeal, the parties entered into settlement negotiations and have agreed and stipulated to the following terms and conditions to settle and resolve all issues of this appeal:

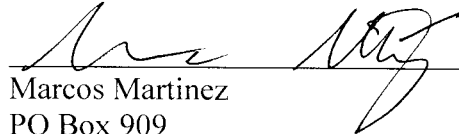
- a. Protestants agree to withdraw this appeal and all issues which they had raised in this appeal.
- b. The Report and Recommendation of the Hearing Examiner, and Order of the State Engineer, (hereinafter “Permit No. RG-20516-S-10 through RG-20516-S-13”), is incorporated into the parties’ Settlement Agreement by reference and a copy is attached hereto as Exhibit A.
- c. The parties request that the Court dismiss this appeal with prejudice, remand the Permit No. RG-20516-S-10 through RG-20515-S-13 to the State Engineer

to amend the Permit, where necessary, to be consistent with the Settlement Agreement.

- d. The State Engineer agrees to adopt as a Condition of the Permit to be re-issued by the State Engineer, the monitoring plan titled, "Buckman Well Field Water-Level Monitoring Program -- Response to Condition of Approval No. 5, Permit No. RG-20516 et al., City of Santa Fe," which includes a map of the Monitoring Program Area, a copy of which is attached to this Motion as Exhibit B, and the City of Santa Fe agrees to implement the monitoring plan according to its terms.

WHEREFORE, all issues and disputes between the parties having been resolved, it is respectfully requested that the Court approve the Settlement Agreement, dismiss this action with prejudice and remand the City's Permit No. RG-20516-S-10 through RG-20516-S-13 to the New Mexico State Engineer for further action consistent with the Settlement Agreement.

Respectfully submitted,



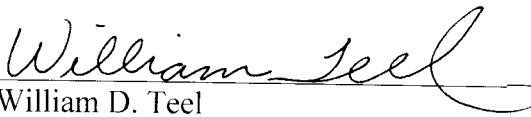
Marcos Martinez  
PO Box 909  
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**Counsel for the City of Santa Fe, Applicant-Appellee**

**Approved by email on 9/24/2007**

Jesse A. Boyd  
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**Counsel for the Protestants-Appellants**



William D. Teel

Special Assistant Attorney General

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Albuquerque, NM 87106

**Counsel for the New Mexico State Engineer,  
Appellee**

BEFORE THE NEW MEXICO STATE ENGINEER

IN THE MATTER OF THE APPLICATIONS ) HEARING NO. 03-004  
BY THE CITY OF SANTA FE FOR PERMITS )  
FOR SUPPLEMENTAL WELLS IN THE RIO ) OSE FILE NOS. RG-20516-S-10  
GRANDE UNDERGROUND WATER BASIN ) thru RG-20516-S-13  
IN NEW MEXICO )

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REPORT AND RECOMMENDATION OF THE HEARING EXAMINER

**THIS MATTER** came before Louis D. O'Dell, the State Engineer's designated Hearing Examiner, on November 19 and 20, 2003, at a Hearing convened in Santa Fe, New Mexico. The Applicant, City of Santa Fe, New Mexico, (City) was represented by John B. Draper, Esq., A. Kyle Harwood, Esq., and Germaine R. Chappelle, Esq. Protestants, Santa Fe Basin Water Association (SFBWA) and Eliot Streeper, were represented by Peter Thomas White, Esq. Protestant, La Luz Group, LLC., represented by John Patterson, Esq., did not appear. The New Mexico Office of the State Engineer (OSE) Water Rights Division (WRD) was represented by William D. Teel, Esq. Having considered the evidence and testimony and being fully advised, the Hearing Examiner recommends that the State Engineer adopt the following Findings and Order:

FINDINGS

1. The State Engineer has jurisdiction of the parties and subject matter.
2. On June 26, 2002, the City filed Applications No. RG-20516-S-10 through RG-20516-S-13 (Applications) For Permits For Supplemental Wells (Supplemental Wells) in the Rio Grande Underground Water Basin in New Mexico for the continued diversion of up to 10,000 acre-feet per year (afy) of groundwater authorized under State Engineer Permit No. RG-20516 et al., filed on July 7, 1976 and granted on December 30, 1976 (Buckman Permit), for municipal purposes within the County of Santa Fe, New Mexico. The City does not request a new appropriation or an increase in the diversion of groundwater above the amount authorized under the Buckman Permit. The City proposes to limit the diversion of groundwater from each

Supplemental Well to 1,500 afy. The Supplemental Wells will be located near the Buckman Well Field north of Santa Fe, New Mexico, as follows:

<u>WELL NO.</u>	<u>SUBDIVISION</u>	<u>SECTION</u>	<u>TOWNSHIP</u>	<u>RANGE</u>
RG-20516-S-10	NE1/4 NW1/4 SE1/4	20	18 N	8 E
RG-20516-S-11	SE1/4 SW1/4 SW1/4	28	18 N	8 E
RG-20516-S-12	SW1/4 NE1/4 SE1/4	33	18 N	8 E
RG-20516-S-13	SE1/4 NE1/4 NE1/4	3	17 N	8 E

A number of the existing permitted wells, authorized under the Buckman Permit, are located as follows:

<u>WELL NO.</u>	<u>SUBDIVISION</u>	<u>SECTION</u>	<u>TOWNSHIP</u>	<u>RANGE</u>
RG-20516-S	NW1/4 NW1/4 NE1/4	1	18 N	7 E
RG-20516-S-2	NW1/4 NW1/4 SE1/4	1	18 N	7 E
RG-20516-S-3	SW1/4 SE1/4	1	18 N	7 E
RG-20516-S-4	NE1/4 SE1/4	1	18 N	7 E
RG-20516-S-9	NW1/4 SW1/4 SW1/4	31	19 N	8 E

The remaining permitted wells authorized under the Buckman Permit are located under the New Mexico Coordinate System, Central Zone, (UTM Zone 13), as follows:

<u>WELL NO.</u>	<u>X - COORDINATE (ft.)</u>	<u>Y - COORDINATE (ft.)</u>
RG-20516-S-5	527,167	1,759,246
RG-20516-S-6	527,865	1,757,053
RG-20516-S-7	529,304	1,758,756
RG-20516-S-8	525,349	1,758,340

3. Affidavits of Publication, filed with the State Engineer Office on August 8 and 20, 2002, state that the legal notices for Applications No. RG-20516-S-10, RG-20516-S-11 and RG-20516-S-13 were published on July 24, 31, August 7 and 14, 2002. The legal notice for Application No. RG-20516-S-12 was published on July 24, 31 and August 7, 2002. All legal notices were published in the *Santa Fe New Mexican*.
4. Protestants SFBWA, Eliot Streeper and La Luz Group, LLC., filed objections to the granting of the Applications.
5. On February 9, 2004, Protestant La Luz Group, LLC., filed a Withdrawal of Protest and Waiver of Impairment and was dismissed as a participant by Order issued on

February 11, 2004.

6. On August 5, 2003, Protestant SFBWA filed a Motion for Partial Summary Judgment that was denied by the Hearing Examiner by Order issued on November 10, 2003.
7. On January 16, 2004, Protestant SFBWA filed a Renewed Motion For Partial Summary Judgment requesting that SFBWA's Motion, filed on August 5, 2003, be reconsidered.
8. On January 29, 2004, the City filed its Opposition to SFBWA's Renewed Motion For Partial Summary Judgment.
9. SFBWA's Renewed Motion For Partial Summary Judgment should be denied.
10. The Buckman Permit conditionally authorized the City to appropriate up to 10,000 afy of groundwater for domestic, commercial, industrial or municipal purposes. Supplemental well permits were subsequently issued to the City to divert up to the 10,000 afy from the nine wells described in Finding 2.
11. A portion of Condition of Approval No. 2 of the Buckman Permit provides in part, that the diversion of water under the permit would be limited annually to the amount of groundwater, determined by the State Engineer, that could be diverted without causing depletion to the flow of the Rio Grande or its tributaries.
12. Condition of Approval No. 6 of the Buckman Permit further provides the following:

No water shall be diverted under this permit after June 30, 1977, unless permittee shall have furnished to the State Engineer such documents as the Engineer may find necessary to establish that the owners or users of wells RG-6128 (known as the Ortiz well), RG-7248 (known as the Boondocks well) and the well located in Section 36, Township 19 North, Range 7 East (known as the Corral well) have waived or released any claim of liability against permittee for injury resulting to such wells from operations under this permit, or that the permittee has acquired the rights of such persons in such wells, or that the permittee can and will supply water to such wells or the users thereof.
13. The City is entitled to utilize a forty-year water-planning horizon pursuant to NMSA 1978, § 72-1-9 (2003).
14. Given the age of the well field and its decline in hydrostatic pressure, the City is

extracting as much water as is economically feasible from the existing Buckman Wells.

15. The City has demonstrated diligence in perfecting its 10,000-afy diversion right under authority of its Buckman Permit.
16. Considering that the City is entitled to a forty year water planning horizon and has shown diligence in perfecting its right, it may continue to develop the full extent of its permitted diversion right up to 10,000 afy through the construction and use of supplemental wells in accordance with state law and OSE rules and regulations.
17. In the past, the City has retired (dedicated) or transferred water rights from the Rio Grande, Rio Nambé, Rio Tesuque and Pojoaque River systems to offset calculated annual depletion effects resulting from pumping the Buckman Wells.
18. The hydrologist for the City, Dr. John W. Shomaker, utilized the OSE superposition version of the McAda-Wasiolek Model to conduct an evaluation of the pumping effects of the Applications on surface water sources and nearby wells. Dr. Shomaker's evaluation employed a model base-run with the permitted pumping amount of 10,000 afy assigned to Wells RG-20516-S through S-9 and a second model run with 4,000 afy of the permitted diversion assigned to Wells No. RG-20516-S through S-9 and 1,500 afy assigned to each of the Supplemental Wells.
19. Dr. Shomaker's evaluation results reflect that the net effects, in afy, on surface water sources, after forty years, will be as follows (a negative value indicates that depletion due to proposed pumping will be less than depletion due to base-case pumping):

<u>SOURCE</u>	<u>EFFECTS (afy)</u>
Rio Nambé/Pojoaque River	-72.15 afy
Rio Tesuque	25.10 afy
Rio Grande	-2,312.77 afy
La Cienega Springs	46.20 afy

20. Dr. Shomaker's evaluation results also reflect that drawdowns in nearby wells, caused by the proposed pumping, would range up to approximately 85 feet (ft) in forty years. He also showed that total drawdown, including regional drawdown and the incremental drawdown due to the proposed pumping, ranged up to 145 ft in forty

- years. The proposed pumping would lead to drawdown in excess of 70 percent of the water column (based on measurements in the WATERS database), after 40 years, in one well (RG-29723). One Protestant's well (RG-23806), would have drawdown greater than 70 percent of the water column after 40 years due to the effects of other pumping. One well that would be affected by the proposed pumping (RG-436), may already be dry according to information in the WATERS database.
21. WRD's hydrologist, Andy Core, utilized his 1996 version of the McAda-Wasiolek Model, (which is the superposition version utilized by Dr. Shomaker), to determine groundwater pumping effects on surface water sources and on nearby wells in the subject area after one, forty and one hundred years.
  22. Mr. Core's base-line model run simulates the effects of pumping the full-permitted 10,000 afy from Buckman Wells No. RG-20516 thru RG-20516-S-8.
  23. Mr. Core's second model run entails pumping 4,000 afy from the same Buckman Wells noted in Finding 22, plus 1,500 afy from each of the four Supplemental Wells.
  24. The comparison of the difference in pumping effects between Mr. Core's base-run and his second model run reflect significant new surface water impacts, in afy, to the Rio Tesuque and La Cienega Springs as follows (negative numbers indicate a reduction in the effects):

<u>SOURCE</u>	<u>DIFFERENCE AFTER ONE YEAR</u>	<u>DIFFERENCE AFTER 40 YEARS</u>	<u>DIFFERENCE AFTER 100 YEARS</u>
Pojoaque River	-2.4 afy	-74.6 afy	- 30.4 afy
Rio Tesuque	0.4 afy	34.8 afy	109.4 afy
Rio Grande	-268.0 afy	-1,870.5 afy	-2,274.4 afy
La Cienega Springs	0.2 afy	63.9 afy	209.2 afy

25. Based upon diversions in accordance with the City's proposed pumping schedule, the City currently has sufficient offsets for effects on the Rio Grande, and for the initial year of effects on the Rio Pojoaque, Rio Nambe and Rio Tesuque systems.
26. At the time of the hearing, the City had no offset rights at La Cienega Springs. The City agrees to provide water rights sufficient to offset increased depletions to La Cienega Springs caused by the proposed pumping during the first year and on a year-by-year basis thereafter.

27. Mr. Core analyzed data from the Ground Water Site Inventory database maintained by the United States Geological Survey and determined that changes in ground water levels in the region of the subject wells, over time, ranged from a rise of 0.89 ft to a decline of 7.41 ft and currently average at a declining rate of about 1.18 feet per year.
28. Much of the groundwater drawdown within the Santa Fe embayment can be attributed to the City's pumping.
29. Mr. Core's analysis reflects that at least 54 wells of other ownership exist within a 20,000-foot radius of a point centered on the Supplemental Wells.
30. The comparison of the difference in pumping effects between Mr. Core's base-run and his second model run reflect that moving 6000 afy of pumping to RG-20516-S-10 through S-13 may cause the following nearby wells to go dry within 40 years:

TABLE 30-A

<u>WELL NUMBER</u>	<u>CURRENT OWNER</u>
RG-438	Robert Weil
RG-23806	Eliot Streeper
RG-29723	United States Department of Agriculture
RG-55206	La Luz / Ortiz

and the following wells to go dry within 100 years:

TABLE 30-B

<u>WELL NUMBER</u>	<u>CURRENT OWNER</u>
RG-437	Suzanne Garcia
RG-6128	Lillian Walker
RG-37078	Betts / Weil
RG-37113	E. Eugene
RG-48491	Glascok
RG-54066	Karp
RG-54262	Whitney
RG-54395	Berger
RG-55734	Mitchel / Norton

TABLE 30-B Continued

<u>WELL NUMBER</u>	<u>CURRENT OWNER</u>
RG-56282	Walbridge
RG-59973	Sklar
RG-60104	Clements
RG-60404	Smith
RG-61944	Ritter
RG-64419	Swanson
RG-65566	Newcomer
RG-65584	Harrison
RG-69782	Wolford
RG-71128	Buchanan
RG-75069	Kenerdine Construction

31. Maximum allowable drawdown in a well of other ownership should be calculated by subtracting the reported water level from the level of the bottom of the production zone and then reducing that number by a factor of 0.7, as recommended in the State Engineer's Guidelines for County Subdivision Regulations Governing Water Supply Requirements (1996).
32. Because the aquifer is thick, but becomes more fine-grained with depth, it may be possible to replace existing wells to regain supply, although possibly not the present yield.
33. Granting of the subject Applications should be conditioned in a manner similar to the Buckman Permit to protect existing water rights.
34. Applicant's Exhibit No. 11 is the Water Conservation Plan (WCP) For the City, dated January 2003, and prepared by the City of Santa Fe Water Division, Water Conservation Office. The WCP outlines numerous past, present and future water conservation measures for the City including but not limited to the following:
  - A. On June 25, 1997, the City Council adopted a comprehensive water conservation ordinance that prescribed regulations and provided financial incentives for water customers to reduce their per capita water use. The

ordinance was substantially amended on November 15, 2001, and included a conservation-targeted rate structure effective during the summer months to encourage wise water use.

- B. On July 25, 2001, the City Council adopted the new Landscape and Site Design Ordinance (LSDO), which among other things, requires the integration of water harvesting and landscape planning to be implemented at the Terrain Management review stage early in the development process. This maximizes the quantity of water harvested for landscape use and improves infiltration and erosion control and encourages the development of alternative sources for irrigation water.
  - C. The LSDO also consolidated the requirements for irrigation systems and mandated the application of the highest industry standards for those irrigation systems and further promoted the principles of Xeriscape.
  - D. The City's conservation efforts have been successful in maintaining Santa Fe as one of the lowest water using communities in the west but drought conditions have further catalyzed the necessity for the City to declare water shortage emergencies under the City's Drought Emergency Ordinance, adopted in 1996 and later revised in June of 2000 and again in April of 2002.
  - E. On December 13, 2000, the City Council adopted then, Mayor Larry Delgado's, Four Point Plan for a Sustainable Water Future that sought to fast-track the implementation of the City's San Juan-Chama Project diversion, further accelerate and expand the City's ongoing conservation efforts, allocate an annual water budget for new growth and seek active participation in long-range regional water planning.
  - F. Applicants Exhibit No. 11 also outlines new conservation and demand management programs for the City.
35. Applicant's Exhibit No. 12 is an excerpt from the State Engineer's publication " A Water Conservation Guide For Public Utilities" that reflects water use, in gallons per capita per day, for the following southwestern cities, for the years 1995 and 2000:

	<u>CITY</u>	<u>1995 USE (GPCD)</u>	<u>2000 USE (GPCD)</u>
	Albuquerque	250	210
	Phoenix	220	199
	Denver	220	219
	El Paso	175	163
	Santa Fe	160	150
	Tucson	155	158

36. Water placed to beneficial use for municipal purposes within the County of Santa Fe is not detrimental to the public welfare of the state

37. Granting the subject Applications, subject to certain conditions of approval, will not impair existing water rights, will not be contrary to the conservation of water within the state and will not be detrimental to the public welfare of the state.

38. It is recommended that Applications No. RG-20516-S-10 through RG-20516-S 13, filed by the City on June 26, 2002, be approved subject to the following conditions:

**ORDER**

**NOW THEREFORE**, SFBWA's Renewed Motion For Partial Summary Judgment, filed on January 16, 2004, is denied. Applications No. RG-20516-S-10 through RG-20516-S 13, filed by the City of Santa Fe, New Mexico, on June 26, 2002, are incorporated into OSE File No. RG-20516 et al., and are approved, subject to conditions, as follows:

**OSE FILE NO:** RG-20516 et al., ( RG-20516-S-10, RG-20516-S-11, RG-20516-S-12 and RG-20516-S-13, all a part of OSE File No. RG-20516 et al., filed on July 7, 1976).

**PERMITTEE:** City of Santa Fe, New Mexico.

**SOURCE:** Groundwater of the Tesuque Aquifer.

**PRIORITY:** July 7, 1976.

**AMOUNT:** The maximum amount of groundwater diverted under Permit No. RG-20516 et al., shall not exceed 10,000 acre-feet per year and is further limited as specified in the Conditions of Approval outlined below.

**POINTS OF**

**DIVERSION:**

- RG-20516-S: NW¼ NW¼ NE¼, Section 1, Township 18 North, Range 7 East, NMPM.
- RG-20516-S-2: NW¼ NW¼ SE¼, Section 1, Township 18 North, Range 7 East, NMPM.
- RG-20516-S-3: SW¼ SE¼, Section 1, Township 18 North, Range 7 East, NMPM.
- RG-20516-S-4: NE¼ SE¼, Section 1, Township 18 North, Range 7 East, NMPM.
- RG-20516-S-5: X=527,167 feet; Y=1,759,246 feet, Central Zone, NMCS.
- RG-20516-S-6: X=527,865 feet; Y=1,757,053 feet, Central Zone, NMCS.
- RG-20516-S-7: X=529,304 feet; Y=1,758,756 feet, Central Zone, NMCS.
- RG-20516-S-8: X=525,349 feet; Y=1,758,340 feet, Central Zone, NMCS.
- RG-20516-S-9: NW¼ SW¼ SW¼, Section 31, Township 19 North, Range 8 East, NMPM.
- RG-20516-S-10: NE¼ NW¼ SE¼ Section 20, Township 18 North, Range 8 East, NMPM.
- RG-20516-S-11: SE¼ SW¼ SW¼ Section 28, Township 18 North, Range 8 East, NMPM.
- RG-20516-S-12: SW¼ NE¼ SE¼ Section 33, Township 18 North, Range 8 East, NMPM.
- RG-20516-S-13: SE¼ NE¼ NE¼ Section 3, Township 17 North, Range 8 East, NMPM.

**PURPOSE:**

Municipal.

**PLACE OF USE:**

County of Santa Fe, New Mexico.

## CONDITIONS OF APPROVAL

1. Permit No. RG-20516 et al., shall not be exercised to the detriment of others having valid existing water rights, or in a manner that is contrary to the conservation of water within the state or detrimental to the public welfare of the state.
2. The amount of water diverted annually under this permit shall be limited to that quantity determined by the State Engineer to be available for diversion without causing impairment to existing water rights from the source and the maximum amount of groundwater that may be diverted from wells RG-25016-S-10, RG-25016-S-11, RG-25016-S-12, RG-25016-S-13, shall not exceed 1,500 acre- feet per year per well. Methods for offsetting depletion effects to surface water sources include:
  - 1.) approved permit to transfer water rights to the wells included under this permit;
  - 2.) retirement of water rights in a manner acceptable to the State Engineer;
  - 3.) replacing depletions with water supplied by the Permittee in amounts, locations and at times of the year in a manner acceptable to the State Engineer and
  - 4.) any other method acceptable to the State Engineer.
3. Diversion of water under this permit remains subject to all Conditions of Approval of Permit No. RG-20516, granted on December 30, 1976, and subject to the Order issued May 7, 1986.
4. The continuing exercise of this Permit, No. RG-20516-S-10 through RG-20516-S 13, shall be contingent upon the filing of two reports by the Permittee, on or before the 10th day of January of 2007 and 2010, that are acceptable to the State Engineer and that confirm that the Permittee is diligently pursuing development of other renewable supplies of water including progress toward completion of a direct diversion of San Juan-Chama project water from the Rio Grande, or, demonstrating development of other alternative supplies of water.
5. On or before January 10, 2006, the Permittee shall establish and submit a plan for a Buckman Well Field Monitoring Program, to assist in the evaluation of pumping impacts on ground and surface water sources, acceptable to the State Engineer. An

acceptable monitoring program shall be implemented on or before January 10, 2007, and continue thereafter, to the satisfaction of the State Engineer, or diversion of water from Wells No. RG-20516-S-10 through RG-20516-S-13 shall cease and this Permit shall be subject to appropriate action by the State Engineer.

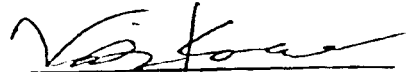
6. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2010, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-A of Finding 30, will not go dry in 40-years, or that the owners of the right to beneficially use groundwater diverted from those wells have waived or released any claim of liability against the Permittee for impairment to such wells resulting from operations under this Permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will, upon agreement of the well owners, supply water to such wells or the users thereof.
7. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2043, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-B of Finding 30 in this Order, will not go dry due to Applicant's pumping authorized under this Permit, or that the owners or users of said wells have waived or released any claim of liability against the Permittee for injury resulting to such wells from operations under this permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will supply water to such wells or the users thereof.
8. Wells RG-20516-S-10 through RG-20516-S-13 shall be equipped with functioning totalizing meters of a type and installed in a manner acceptable to the State Engineer. The State Engineer shall be notified in writing of the make, model, serial number, number of free moving dials, the multiplier, the initial reading, and the date of installation of the described totalizing meters.

9. Records of the amount of water diverted from wells RG-20516-S-10 through RG-20516-S-13, and all wells permitted under OSE file RG-20516 et al., shall be submitted to the State Engineer for each calendar month on or before the 15<sup>th</sup> day of the following month.
10. The Permittee shall utilize the highest technology available to the maximum extent economically practical to insure conservation of water.
11. The State Engineer shall retain jurisdiction over this Permit to implement all provisions of the above Conditions of Approval.

Respectfully submitted this 10<sup>TH</sup> day of September 2004.



Louis D. O'Dell, P.E.  
Hearing Examiner



Victor Kovach  
Legal Advisor

I ACCEPT AND ADOPT THIS REPORT AND RECOMMENDATION OF THE HEARING EXAMINER THIS 13<sup>th</sup> DAY OF September 2004.



JOHN R. D'ANTONIO, JR., P.E.  
NEW MEXICO STATE ENGINEER

**Buckman Well Field Water-Level Monitoring Program  
Response to Condition of Approval No. 5,  
Permit No. RG-20516-S-10 thru RG-20516-S-13, City of Santa Fe**

The State Engineer approved with conditions the City of Santa Fe (City)'s Applications for Permits for Supplemental Wells under OSE File Nos. RG-20516-S-10 through RG-20516-S-13 (Buckman Wells 10 through 13) on September 13, 2004. The permits authorize diversion up to 10,000 ac-ft/yr from 13 wells, including RG-20516-S-10 through RG-20516-S-13, subject to a number of conditions specified in New Mexico State Engineer Order HU 03-004 (Order):

5. On or before January 10, 2006, the Permittee shall establish and submit a plan for a Buckman Well Field Monitoring Program, to assist in the evaluation of pumping impacts on ground and surface water sources, acceptable to the State Engineer. An acceptable monitoring program shall be implemented on or before January 10, 2007, and continue thereafter, to the satisfaction of the State Engineer, or diversion of water from Wells No. RG-20516-S-10 through RG-20516-S-13 shall cease and this Permit shall be subject to appropriate action by the State Engineer.
6. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2010, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-A of Finding 30, will not go dry in 40 years, or that the owners of the right to beneficially use groundwater diverted from those wells have waived or released any claim of liability against the Permittee for impairment to such wells resulting from operations under this Permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will, upon agreement of the well owners, supply water to such wells or the users thereof.
7. No water shall be diverted from wells RG-20516-S-10 through RG-20516-S-13 after December 31, 2043, until such time as the Permittee shall have furnished to the State Engineer such information and/or documents as the Engineer may find necessary to establish that any wells impacted under this Permit, including those wells identified in Table 30-B of Finding 30 in this Order, will not go dry due to Applicant's pumping authorized under this Permit, or that the owners or users of said wells have waived or released any claim of liability against the Permittee for injury resulting to such wells from operations under this permit, or that the Permittee has acquired the rights of such persons in such wells, or that the Permittee can and will supply water to such wells or the users thereof.

This monitoring program shall be implemented pursuant to the Order.

**1.0 PURPOSES**

The purposes of the monitoring program are to give a general indication of water-level change over time, to monitor the effects pumping the Buckman well field has on nearby senior water

EXHIBIT B

rights, including OSE 72-12-1 wells, and to provide data necessary to identify threshold drawdowns for administration of State Engineer Order Conditions 5, 6, and 7. This water-level monitoring program will document water-level change in the vicinity of RG-20516-S-10 through RG-20516-S-13 and guide State Engineer's administration in protecting senior water rights, including 72-12-1 wells. This program will support the State Engineer's existing and on-going annual surface water depletion calculations and the requisite mitigation of surface water depletions resulting from the City's diversions under permit RG-20516. The program will benefit future groundwater resource management in the greater basin.

## **2.0 THE MONITORING PROGRAM**

This Monitoring Program enhances current water-level monitoring efforts conducted by the State Engineer and augments the City's current water-level monitoring program under the existing RG-20516 permits. New water-level monitoring wells are added to the existing program for determining effects of pumping on senior wells in the vicinity of RG-20516-S-10 through RG-20516-S-13.

### **2.1 Geographic boundary of the Monitoring Program Area**

The Monitoring Program Area to which this monitoring plan applies is defined by a 4-mile radius from each RG-20516-S-10 through RG-20516-S-13 (Exhibit A) and is subject to expansion as per Section 3.3. The initial study of wells under Section 2.4 will include the Monitoring Program Area and the Tano Road Area (Exhibit A).

### **2.2 Current RG-20516 water-level monitoring:**

The City of Santa Fe is currently responsible for a water-level monitoring program required by a condition of approval of the original Permit No. RG-20516, issued on May 23, 1972. The monitoring program for RG-20516 has evolved over time, and currently includes the following elements:

- Monthly measurements in each of Buckman Wells 1 through 9.
- Monthly measurements in the Skillet Observation Well, RG-21318, 19N.8E.30.344.
- Monthly measurements in the Weil Corral well, 19N.7E.36.441.
- Monthly measurements in the Permit well, RG-16681, 18N.8E.2.2333
- Continuous measurements (hourly) in SF2B and SF2C under a joint funding agreement with the US Geological Survey (USGS)
- Monthly measurements in SF3A, SF3B, SF3C, SF4A, SF4B, SF4C, and SF5C under a joint funding agreement with the USGS

The City will continue monitoring the wells listed above.

### 2.3 New water-level monitoring:

Water-level monitoring in selected wells in the Monitoring Program Area will comprise a well network (the network) designed to better understand pumping effects from RG-20516-S-10 through RG-20516-S-13. The City shall add to the current water-level monitoring program: 1) water-level monitoring of RG-20516-S-10 through RG-20516-S-13, 2) the two dedicated, nested, OSE-USGS monitoring wells at Las Campanas and Buckman-Devil's Throne, whether or not RG-20516-S-10 through RG-20516-S-13 are being pumped, 3) seven private OSE 72-12-1 wells and one Forest Service Well, which will serve as a proxy to predict potential effects on senior wells (wells of record prior to the City's Applications Nos. RG-20516-S-10 through RG-20516-S-13) in the vicinity of RG-20516-S-10 through RG-20516-S-13 pumping, and 4) one dedicated, monitoring well approximately 2-4 miles east of RG-20516-S-13, which is to be drilled by the City.

The City will measure the water-levels in the wells identified below on the given measurement schedules:

- Monthly measurements, whether pumping or not pumping, in RG-20516-S-10 through RG-20516-S-13.
- Continuous (hourly) measurements using electronic transducers downloaded monthly in the existing piezometer nests installed by the State Engineer and USGS at Buckman-Devil's Throne (SF6-A, SF6-B and SF6-C; 18N.8E.17.1341) and Las Campanas (USGS ID# 354228406044901, 354228406044902, and 354228406044903; 17N.8E.15.12444).
- Continuous (hourly) measurements using electronic transducers downloaded quarterly in RG-30777, the unequipped Bernstein well (17N.8E.2.232).
- Semi-annual, non-pumping measurements in January and July, provided that permission and access can be obtained from the owners of:
  - RG-6386, Tony's Windmill (NMSU; 18N.8E.24.3144, TD 350 ft).
  - RG-29524, Las Dos 1, (Gonzales, formerly Vigil well; 18N.9E.30.2431, TD 773ft).
  - RG-25463, Piñon-Bogle (formerly Lilienthal well; 18N.9E.31.412, TD 841 ft).
  - RG-24584, Santa Fe Ranch (Daniels; 17N.8E.1.2123, TD 602 ft; Note: this well does not appear in WATERS database).
  - RG-438, Midway Windmill Well (18N.8E.17.21314, TD 310 ft)
  - RG- 29723, USFS well (17N.8E.5.323, TD approximately 684 ft).

- Continuous (hourly) measurements using an electronic transducer downloaded quarterly in an active, metered OSE 72-12-1 well within two miles of RG-20516-S-12 or RG-20516-S-13, provided that permission and access can be obtained. The State Engineer and the City may, after monitoring the OSE 72-12-1 well for two years, jointly decide to suspend the continuous measurement, if the data are not found to be useful for the purpose of the monitoring program.
- Continuous (hourly) measurements using an electronic transducer downloaded quarterly in a well approximately 2-4 miles east of RG-20516-S-13. The City will install a 4" schedule 40 PVC, monitoring well with a 20-ft screened interval, to a depth of 1,200-1,500 feet, and a transducer. The City may augment the monitoring well specifications above at its option. The SFBWA shall secure appropriate land or easement upon which to drill the well required under this paragraph and the City shall cooperate in good faith in determining an appropriate location and effectuating any necessary transfer of title.

The City may, depending upon access arrangements, well suitability, and value of the collected data and after consultation with the State Engineer, replace measuring schedules or the OSE 72-12-1 wells with other similar wells that lie within the Monitoring Program Area. Wells already in the OSE-USGS cooperative monitoring network will be given substitution preference.

#### **2.4 Initial study of local wells**

In preparation to commence this monitoring program, the City will conduct a detailed study of local wells in the Monitoring Program Area and the Tano Road Area (Exhibit A). The study will summarize the data available from sources such as the WATERS database, the NMBG well study, and information provided by SFBWA and Tano Road Association. Some of the wells identified in the study may be identified for monitoring, in which case the City will seek permission to make water-level measurements. The City will submit the study with a list of wells, which will be submitted for review and acceptance by the State Engineer and will be posted on the internet accessible to the public described in Section 3.2 below. A paper map of all identified wells will be submitted to the State Engineer.

#### **2.5 Quality of Data Collection**

The water-level measurements will be made by trained personnel, and will follow the data-collection and quality assurance guidelines in use by USGS and State Engineer staff and contractors in the existing statewide monitoring program.

### **3.0 REPORTING**

The purpose of the following reporting requirement is to comply with the RG-20516 permit and to make all pertinent production and water-level data, analysis and reports readily available for retrieval and analysis. Without the ability to correlate water-level trends to city well production data, the water-level measurements are of limited utility.

### **3.1 Data reporting to State Engineer**

In addition to its current reporting requirements, the City will submit daily production data for RG-20516-S-10 through RG-20516-S-13 and monthly water-level measurements collected under this monitoring program to the State Engineer within 30 days of measurement. Semi-annual measurements and continuous measurements will be reported by February 28 and August 31 following the January or July measuring period, respectively.

### **3.2 Data and report availability**

By April 15, 2008, the City will make accessible to the public on the internet at a single site: 1) a map showing the Monitoring Plan Area, roads within the Area and drawdown effects in the Area, 2) pre-2007 monthly and post-2006 daily production from RG-20516, 3) past and current measured water-level data, 4) hydrographs from the monitored wells, 5) this monitoring plan, and 6) any pertinent reports generated by this monitoring program. The specified water-level and production data will be maintained from the beginning of this monitoring program or the beginning of the period of record, whichever occurred earlier, and updated quarterly. Data will be available in an Excel-compatible format for ease of use.

### **3.3 Biennial Summary Report**

Every two years by February 28th, and beginning by April 15, 2008 the City will submit to the State Engineer a brief report summarizing RG-20516 production and the water-level trends of the monitored wells. Each report will include a ten-year and forty-year projection of water-level declines in the monitored wells and a projection of water-level declines for wells in the Monitoring Program Area or as specified in the RG-20516 permit. The report will also include ten and forty year projections for one well from the western terminus of the Tano Road Subdivision. The water columns in senior wells will be determined from OSE Drillers Well Logs, actual static water-levels, site-specific studies, or a combination of these data.

Each report will forecast whether the remaining water column at the end of both projections will, in any monitored well, in any of the wells specifically identified in the Permit, or in any other senior well within Monitoring Plan Area, exceed 70% drawdown of the water column available at the initiation of this monitoring program, (see finding number 31 in the State Engineer Order). If the water level declines within the Monitoring Program Area are considered significant at its current boundary, and as additional hydrologic and geologic information becomes available, the Monitoring Program Area may be expanded.

The report will also include a map depicting water-level trends in the monitored wells. The report with a more generalized map will be posted on an internet site (Section 3.2) accessible to the public within 30 days of submittal to the State Engineer. The public may submit comments on the report to the State Engineer.

There shall be a presumption that water-level declines in Monitoring Program Area are the result of the pumping of RG-20516-S-10 to RG-20516-S-13, which the City may rebut with

appropriate evidence. The report may include results from groundwater modeling to analyze the contribution of RG-20516-S-10 to RG-20516-S-13 toward any monitored decline.

If the Biennial Summary Report forecasts a greater than 70% induced drawdown in any identified well with its forty-year projection, but not with its 10-year projection, the report shall include the City's strategy for complying with the conditions of the Permit as to those wells. If the Biennial Summary Report forecasts a greater than 70% induced drawdown in any such well with its 10-year projection, the City shall comply with the terms Section 4.0 below. The public may submit comments on the report to the State Engineer.

#### **4.0 MITIGATION OF RG-20516-S-10 THROUGH RG-20516-S-13-INDUCED DRAWDOWN IN SENIOR WELLS**

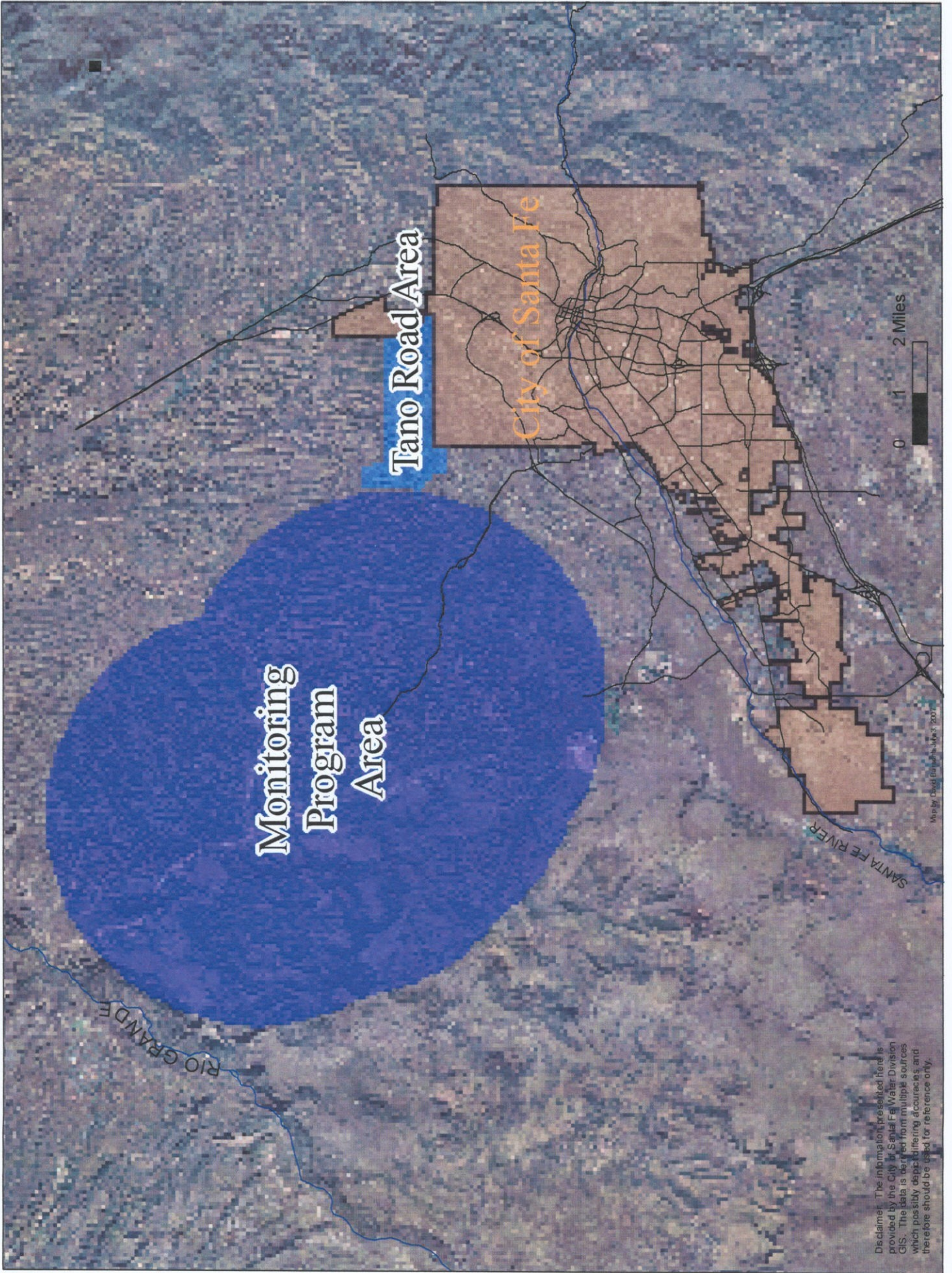
If, at the time of any Biennial Summary Report, the 70% induced drawdown limit in any senior well is forecast "by water level trends" to be reached within ten years of the date of the report, the City shall, within one year of the date of the Report, submit to the State Engineer a plan to come into compliance with the conditions of the Permit. The plan may adjust City pumping schedules, or mitigate the effects of City-induced drawdown in specific wells by other actions, such as connecting the water users to other sources, or other measures acceptable to the water user and acceptable to the State Engineer. The public may submit comments on the plan to the State Engineer.

Should any senior well owner within the vicinity of RG-20516-S-10 through RG-20516-S-13 claim that the 70% induced drawdown limit is being reached, technical representatives of the City, the State Engineer, and the owner of the senior well shall review the evidence and determine a finding. Should this finding confirm the presence of City induced drawdown approaching or exceeding the 70% drawdown guideline, the City shall, within six months of the finding, submit to the State Engineer a plan to come into compliance with the conditions of the Permit with regard to the said senior well.

The State Engineer may accept any plan submitted pursuant to this section, may adopt his own findings, and may order alternative means of mitigation of effects on senior wells. Should effects continue, the State Engineer may seek to enforce compliance with the permit conditions pursuant to NMSA 1978, as amended, Section 72-2-18. Any plan submitted to the State Engineer pursuant to this section shall be posted on a website accessible to the public within 30 days of submittal.

Exhibit A: Buckman Supplemental Wells (RG-20516-S-10 through RG-S0516-S-13) Monitoring Program Area

Exhibit A: Buckman Supplemental Wells (RG 205 16-S-10 through RG-205 16-S-13) Monitoring Program Area



Disclaimer: The information presented here is provided by the City of Santa Fe Water Division GIS. The data is derived from multiple sources which possibly differ, differing accuracies and therefore should be used for reference only.