

**BEFORE THE NEW MEXICO
STATE ENGINEER**

IN THE MATTER OF THE APPLICATIONS OF)	
THE CITY OF LAS CRUCES TO DRILL TWO)	
WELLS TO SUPPLEMENT EXISTING WATER)	FILE NO. LRG-430-S-29
RIGHTS IN THE LOWER RIO GRANDE)	AND
UNDERGROUND WATER BASIN)	LRG-430-S-30

REPORT AND RECOMMENDATION OF THE HEARING EXAMINER

This matter came before Calvin Chavez, the State Engineer's duly designated hearing examiner, on October 1, 1996 at an administrative hearing held in Las Cruces, New Mexico. The applicant, City of Las Cruces, was represented by Jay Stein, Esq. of the firm Simms and Stein, P.A. Moongate Water Co. and Louis A. Gariano were represented by Kyle W. Gesswein, Esq. of the Bates Law Firm. The Water Rights Division of the New Mexico State Engineer Office was represented by C. Brian James, Special Assistant Attorney General. Having heard the arguments and considered the evidence presented in the subject matter and being otherwise fully advised in the premises, the Hearing Examiner recommends that the State Engineer accept and adopt the following Findings and Order.

FINDINGS AND ORDER

1. The State Engineer has jurisdiction over the parties to this proceeding and the subject matter.
2. On October 8, 1986, the City of Las Cruces filed applications LRG-430-S-29 and LRG-430-S-30 with the State Engineer for permits to drill two (2) wells for supplemental purposes. The wells are to have 16-inch casing and are to be drilled to approximately 1200 feet in depth. Well LRG-430-S-29 is to be located within the SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 32,

Township 21 South, Range 3 East, N.M.P.M., on land owned by the State of New Mexico. Well LRG-430-S-30 is to be located within the SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 32, Township 21 South, Range 3 East, N.M.P.M. The wells are to be commingled with 26 other declared and permitted municipal wells for the declared and permitted intent to appropriate 21,869 acre-feet per annum of shallow groundwater of the Lower Rio Grande Underground Water Basin. The diversions from supplemental wells LRG-430-S-29 and LRG-430-S-30 will not exceed 1650 acre-feet per year from each well. Replacement application LRG-430-S-30 was filed on May 31, 1995 to drill a supplemental well in the Lower Rio Grande Underground Water Basin with 18-inch diameter casing approximately 1500 feet deep to be located with SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 32, Township 21 South, Range 3 East N.M.P.M. The well is to be located on land owned by the State of New Mexico for the purpose of supplementing existing declared and permitted wells for the declared and permitted diversion of 21,869 acre-feet per year. The diversions from supplemental well LRG-430-S-30 will not exceed 1650 acre-feet per year.

3. Applications LRG-430-S-29 and LRG-430-S-30 were advertised in the Las Cruces Sun News on October 17, 24, and 31, 1986 and timely protests were filed.
4. Replacement Application LRG-430-S-30 was advertised in the Las Cruces Sun News on November 14, 21, 28 and December 5, 1995, and was not protested. This application has been included in this administrative hearing for the purpose of addressing cumulative effects on the sources resulting from pumping wells LRG-430-S-29 and LRG-430-S-30.
5. Protestant Louis Gariano d.b.a. Moongate Water Company is the only protestant that submitted the required hearing deposit and is therefore the only protestant that has standing to participate in the administrative hearing.

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6. Wells LRG-430-S-29 and LRG-430-S-30 are to be drilled into the Jornada del Muerto Subbasin, hereinafter referred to as the Jornada Basin.
7. The Jornada Basin is a down-faulted basin lying between the bedrock outcrops of the San Andres Mountains on the east and a bedrock high which separates the Jornada Basin from the Mesilla Basin on the west. The basin fill includes gravel, sand, silt, and clay, assigned to the Santa Fe Group.
8. Natural discharge of groundwater across the bedrock high that bounds the Jornada Basin on the west is about equal to the rate of recharge.
9. In the vicinity of the applied for wells the thickness of the aquifer containing less than 1,000 mg/l total dissolved solids is approximately 760 feet.
10. Cumulative pumping of wells LRG-430-S-29 and LRG-430-S-30, as proposed by the applicant's witness, has been modeled to increase from 362 acre-feet in 1997 for one well and no pumping from the other, to 1,650 acre-feet per year from each well by the year 2026.
11. The pumping of wells LRG-430-S-29 and LRG-430-S-30 will result in a drawdown in wells of other ownership of between 1 foot and 25 feet after 40 years of pumping at the incremental increased rate referred to in Finding 10.
12. It is predicted that within 40 years three(3) wells will go dry as a result of pumping wells LRG-430-S-29 and LRG-430-S-30. Within 100 years of pumping seven (7) wells will go dry as a result of the proposed pumping.
13. The part of the basin-fill aquifer saturated with fresh water is sufficiently thick that it will be possible to restore the ability to pump any well in which the water level would be lowered.
14. The pumping of wells LRG-430-S-29 and LRG-430-S-30 will not result in increased effects on the Rio Grande.

15. The applicant and protestant propose criteria which reserves one-third ($\frac{1}{3}$) of the aquifer from appropriation as a buffer against impairment and salinity encroachment. *
16. It is estimated by the applicant's hydrologist that the top two-thirds ($\frac{2}{3}$) of the Jornada Basin contain approximately 8,000,000 acre-feet of recoverable water.
17. Forty years of aquifer life has been a standard used in administration of water rights in many mined basins in New Mexico. Forty (40) years may be an appropriate economic lifetime for management of the mined water in the Jornada Basin. Any applicant proposing to divert water from any part of the mined area must demonstrate that at least 40 years of life exists as a criteria for addressing impairment issues while at the same time keeping within the provisions of Findings 15 and 16.
18. More than forty (40) years of life exists at the vicinity from which these wells would appropriate water.
19. The applicant and protestant agree that high capacity wells (wells that divert ≥ 500 acre-feet per year) shall be drilled no closer than one-half ($\frac{1}{2}$) mile from wells of other ownership for the purpose of protecting existing rights and the proper operation of the well.
20. The State Engineer has not adopted specific criteria in the Lower Rio Grande Basin for administration of water rights.
21. The City has enacted two water conservation measures: a waste ordinance and an inclined block rate schedule.
22. The City's present total per capita water use is 228 gpcd. With the measures referred to in Finding 23, it is anticipated that Las Cruces will decrease water use below 211 gpcd. The City's residential per capita water use in 1990 was approximately 140 gpcd. *
23. Las Cruces is in the process of implementing a Water Conservation Plan. On October 7,

1996, the City Council enacted two measures from the Water Conservation Plan: Ordinance No. 1578 which imposes restrictions on outdoor watering; and Resolution No. 97-132 creating a Water Conservation Ad Hoc Committee to identify solutions to better use and conserve water in the City.

24. The applicant and protestant stipulated to limit the use of water which may be diverted from wells LRG-430-S-29 and LRG-430-S-30 to the east mesa overlying the Jornada Basin. Settlement negotiations between the applicant and protestant resulted in a boundary identified as 4127 feet above sea level as representing a pressure zone boundary that approximately coincides with the western boundary of the Jornada Basin. This boundary represents the boundary of export criteria further defined in Finding 25.
25. The applicant and protestant stipulated that Las Cruces would limit its exported waters to an average of 4,000 acre-feet per annum, further based on a rolling average of 5 to 10 years, and the protestant would limit its exported waters to an average of 1,000 acre-feet per annum. *
26. The granting of the captioned applications subject to certain conditions 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.

NOW, THEREFORE, IT IS HEREBY ORDERED that the captioned applications are hereby approved subject to the following conditions:

1. Applications LRG-430-S-29 and LRG-430-S-30 shall not be exercised to the detriment of existing water rights, shall not be exercised in a manner that is contrary to the conservation of water within the state, and shall not be exercised to the detriment of the public welfare of the state.
2. The total amount of water which may be diverted from Wells LRG-430-S-29 and LRG-430-

S-30 shall be limited to the annual pumping rates as set forth in the following table:

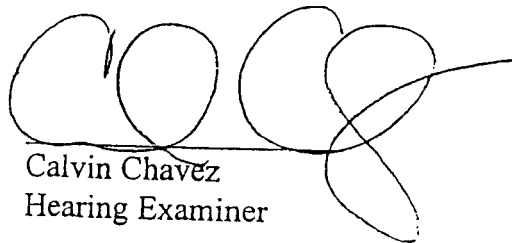
YEAR	LRG-430-S-29 ACRE-FEET	LRG-430-S-30 ACRE-FEET
1997-2000	465	284
2001-2005	649	558
2006-2010	1041	786
2011-2015	1460	1219
2016-2025	1548	1548
2026 & thereafter	1650	1650

3. The total amount of water which may be diverted from the City's municipal supply wells under file LRG-430 et al. shall not exceed 21,869 acre-feet per annum measured at the wells.
4. Wells LRG-430-S-29 and LRG-430-S-30 shall not be drilled within one-half (1/2) mile of any well of other ownership.
5. Wells LRG-430-S-29 and LRG-430-S-30 shall be equipped with totalizing meters of a type approved by and installed in a manner and at locations acceptable to the State Engineer.
6. Records of the amount of water diverted from each well during the previous month shall be submitted to the State Engineer Office, District IV Supervisor in Las Cruces on or before the 10th day of each month.
7. The City shall utilize the highest and best technology and management practices available to ensure conservation of water to the maximum extent possible.
8. The City shall submit on January 1 of each year, a written report on water conservation efforts, overall per capita use and residential per capita use calculations and any changes to the water conservation plan all of which illustrate the effectiveness of the water conservation

efforts of the City. Within 7 years of approval of these permits, the City shall reduce their residential per capita use to the amount equal to the southwestern states average.

9. The permittee, prior to diversion of water under these permits, shall install a well monitoring system in the Jornada Basin, of a type and location (s) acceptable to the State Engineer. Monitored water level measurements shall be taken and reported at a frequency acceptable to the State Engineer.
10. The submittal of a plat, prepared in accordance with the rules and regulations of the State Engineer, identifying the benefitted area of the City's declared rights shall be submitted to the State Engineer on or before October 31, 1997.
11. Proof of Completion of Wells LRG-430-S-29 and LRG-430-S-30 shall be filed on or before August 31, 1999.
12. Proof of Application of Water to Beneficial Use shall be filed on or before October 31, 1997.

Respectfully submitted,

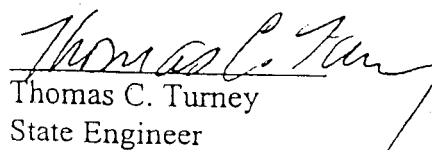
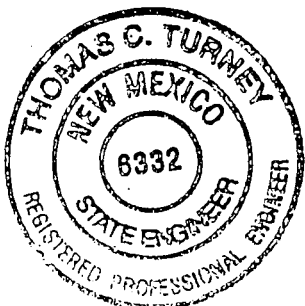


Calvin Chavez
Hearing Examiner

Dated: August 18, 1997

I accept and adopt this Report and Recommendations of the Hearing Examiner.

WITNESS my hand and official seal this 18th day of August, 1997.



Thomas C. Turney
State Engineer