

State of New Mexico
Office of the State Engineer

Lower Rio Grande Water Master
Annual Report
2013 Accounting Period



Photograph of the Leasburg Main Canal (full with groundwater,) in the central portion of the Lower Rio Grande Water Master District. Courtesy of R. Serrano

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INTRODUCTION

The Lower Rio Grande (LRG) Water Master District was declared by Order of the State Engineer (SE) on December 3, 2004. The District encompasses a geographic area of 4,224 square miles and stretches from its northern extent at the base of Elephant Butte Reservoir in central Sierra County, to its southern extent at the New Mexico/Texas/Mexico border in southern Dona Ana County. The District includes the main stem of the Rio Grande, its tributaries, and the underground waters within the geographic area described above. There are several water users within the District including the City of Las Cruces, City of Truth or Consequences, Elephant Butte Irrigation District (EBID), New Mexico State University, New Mexico Spaceport Authority, NASA – Lyndon B. Johnson White Sands Test Facility, Public Utilities of New Mexico, & Union Pacific Intermodal Rail Yard to name a few. Additionally, the LRG Water Master District is home to one of the state’s largest, if not the the largest agricultural producing regions for crops such pecans, cotton, and vegetables (*USDA Census of Agriculture, 2007*).

The surface and groundwaters of the District are administered in accordance with all applicable state laws and more specifically in accordance with all SE Order’s, permits, licenses, hydrographic surveys, court adjudications, compacts, and settlement agreements, to including the following:

- New Mexico Statutes Annotated, Chapter 72
- The Rio Grande Compact
- The Lower Rio Grande Adjudication (State of New Mexico v. EBID)
- Lower Rio Grande Adjudication, SS-97-101- Settlement Agreement and Third Judicial District Court Final Order (2011)

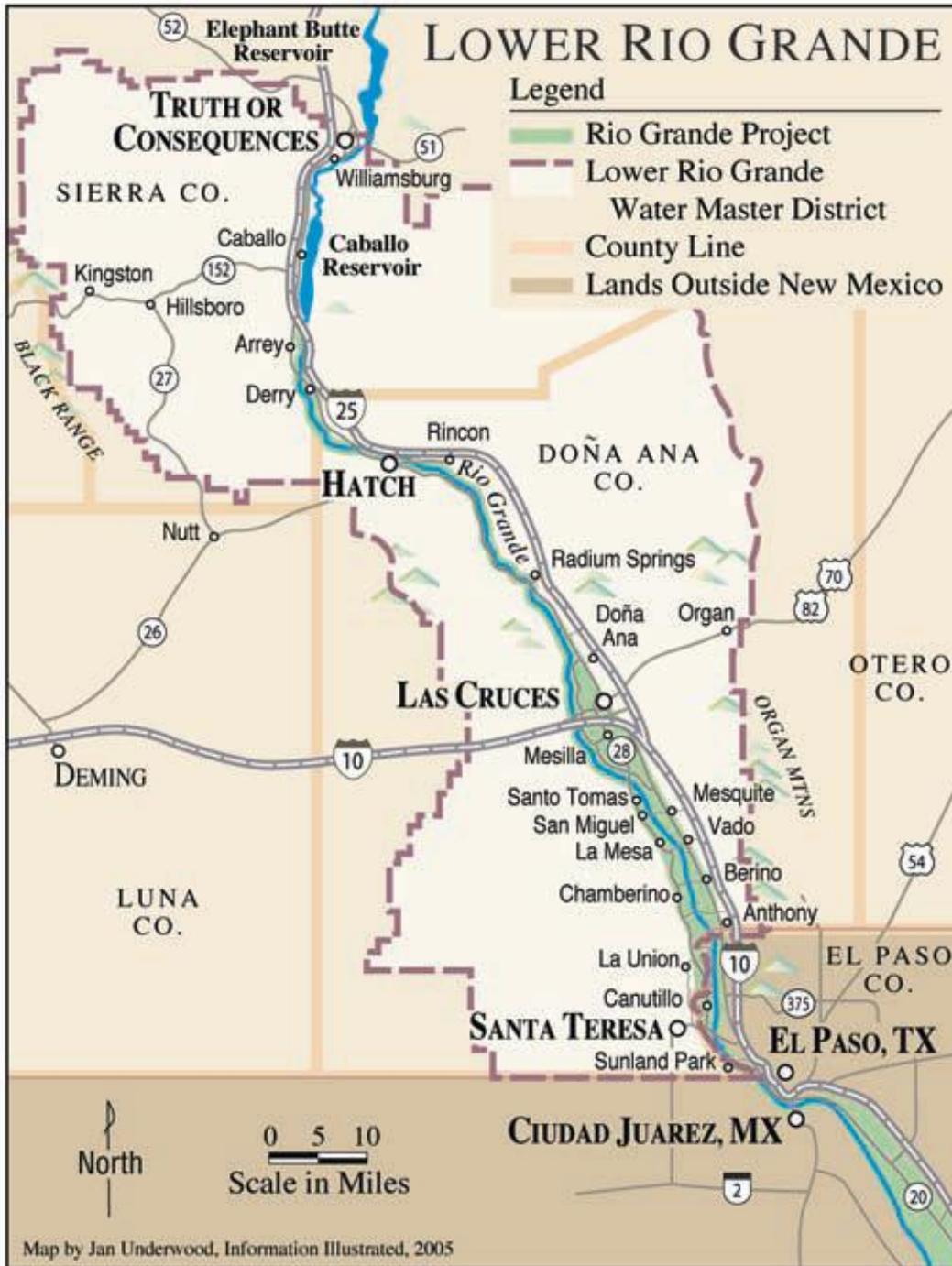
- SE Order Number 169, Creating the LRG Water Master District
- SE Order Number 170, Metering Order
- SE Order Number 172, Amended Metering Order
- SE Order Number 180, Supplemental Metering Order
- The Hot Springs Hydrographic Survey (1958)
- The Las Animas Creek Adjudication, Cause No. 6427

New Mexico state law declares that SE has a statutory responsibility to supervise, measure, appropriate, and distribute the waters of the state *NMSA 1978, Section 72-1-1*. Additionally, New Mexico state law declares that the SE has the authority to appoint Water Masters whose job is to appropriate, regulate, and control the waters of such water districts, if it is in the best interests of public safety, and the water users of such water districts. *NMSA 1978, Section 72-3-1 & Section 72-3-2*.

In accordance with the above referenced statute, the SE appointed a Water Master to the LRG Water Master District who's charged with administering and apportioning the waters of the District, and whose specific duties include; but are not limited to:

- Curtailing illegal diversions
- Measuring and reporting water usage within the district
- Curtailing out-of-priority diversions
- Administering water usage according to agreements entered into by the water users of the district
- Coordinate, where indicated, with the United State Bureau of Reclamation (BOR) and the EBID so as to ensure the appropriate regulation and control of groundwater withdrawals.

MAP OF THE LOWER RIO GRANDE WATER MASTER DISTRICT



GENERAL

The LRG Water Master group currently consists of four full time employees who maintain offices at the District IV Las Cruces Office of the State Engineer, at 1680 Hickory Loop, Suite J. in Las Cruces. Members of the group include LRG Water Master Ryan J. Serrano, LRG Water Master Christopher Whitman, Assistant LRG Water Master Demetrio Alanis, and a currently vacant Assistant LRG Water Master position. All members of the LRG Water Master group are direct employees of the SE and are compensated from the SE's general fund.

Field work of the water master group generally includes inspections of groundwater and surface water points of diversions, measurement devices and structures, water right places of use and purposes of use, and any illegal diversions or waste of water. Field work also includes the acquisition of point of diversions and place of use data utilizing Trimble GPS technology.

Office work of the Water Master group generally includes preparing technical reports and memoranda on water rights and the metered diversions of those rights. Processing and maintaining approximately 14,000 meter records that are submitted to the District IV office annually, tabulating diversion records and determining over diversions, compiling reports, generating compliance notices and general correspondence, providing customer assistance to the general public, coordinating compliance actions with the OSE's Administrative Litigation Unit, and attending meetings of varying degrees.

MEETINGS

In 2013, the LRG Water Master and his staff participated in several one-on-one meetings with water users both in the office and in the field. Discussions centered on groundwater diversion limits, reconciliation of accounts, settlement provisions, and metering issues. The Water Master also participated in several meetings with the New Pecan Growers Association and the Southern New Mexico Diversified Row Croppers Association in regards to the development of rules for expedited water marketing within the LRG.

ENFORCEMENT & COMPLIANCE

In 2013, The LRG Water Master group initiated 100 enforcement and compliance actions for varying degrees of non-compliance within the SE jurisdiction as set for in the onset of this report. Of the 100 enforcement and compliance actions initiated, 52 of these have been resolved without any further enforcement, and 48 are currently pending. If the remaining 48 are not resolved in a timely fashion these issues will be forwarded to the SE's Administrative Litigation Unit to pursue compliance orders in the Third Judicial District Court.

OTHER ACTIVITIES

In accordance with SE Order number 172, it is the responsibility of the water right owners within the LRG Water Master district to submit meter readings to the SE on or before the tenth day of January, April, July, and October for the three preceding calendar months, unless otherwise ordered by the SE. In an effort to maintain high voluntary meter reading submittal rates, and to ensure a complete and accurate data record, the LRG Water Master group has taken several proactive steps to ensure compliance. Those steps include the following:

Postcard Reminders – During the month of December of each accounting year LRG Water Master Staff sends a meter reading reminder postcard to every water right owner with an actively metered well or diversion. The postcard serves as a general reminder to water right owners to submit a final meter reading for the accounting year.

Meter Reading Overdue Letter - In January of the following accounting year Water Master staff sends out a meter reading overdue letter to those water right owners who failed to submit their meter readings for the final reporting period of the year. The letter requires these water right owners to submit their meter reading(s) within 5 days of the receipt of the letter. The letter also indicates that if meter readings are not submitted within a timely manner, the issue would be forwarded to the SE's Administrative Litigation Unit.

Outstanding Meter Reading Enforcement – Traditionally there is a small percentage of water right owners who do not respond to either of the two above

referenced efforts. In order to facilitate a complete data record Water Master staff will conduct field work and physically acquire a meter reading for each of the remaining wells for which a reading was not submitted. To follow up and ensure that these water right owner's submit their meter readings in the future, the LRG Water Master in conjunction with the SE's Administrative Litigation Unit will pursue enforcement actions.

In 2013, as a result of the efforts outlined above **2,450 wells**, or **93%** of the actively metered wells within the LRG Water Master District have a meter reading entered into the WATERS databases for the final reporting period of 2013. This data is tabulated in the diversion summary included hereto.

SETTLEMENT TERMS

In addition to the ongoing efforts to increase the voluntary meter reading submittal rates described above, in 2013, Water Master staff also provided notification to irrigation water right owners of their requirements under the Stream System Issue 101 (SSI No. 101) Settlement Agreement and Final Judgment of the Third Judicial District Court. Specifically, notices and general information letters were sent to water right owners in June of 2013, notifying them of provisions within the settlement that allow for joint management of groundwater rights associated with "farms under the same management/ownership (OwMan)."

Joint management gives water users more flexibility in allocating groundwater pumping among farms (that is, one farm can pump more, if another farm pumps less), even if those farms have different water rights file numbers. This provision can be used in managing groundwater on separate farms owned by the same party. This provision can also be utilized by a farmer who manages a number of farms, not all of which he or she owns, provided there is a written agreement between the farmer and the landowners.

In the days and months following the dissemination of this information, Water Master staff had hundreds of one-on-one meetings with water right owners seeking to take advantage of this particular settlement provision in order to rectify discrepancies amongst farms which they

either owned or managed. As a result of these meetings a significant number of OwMan plans were filled and there are currently **37,000 irrigated acres** identified under the OwMan provision.

2013 DIVERSIONS

In 2013, the EBID board of directors allotted 3.5 acre inches (0.29 acre feet per acre) to its constituents. This allocation equates to **26,285 acre feet** of Rio Grande Project surface water being put to beneficial use within the LRG Water Master District in 2013, as compared to 10 acre inches (0.83 acre feet per acre) or 75,231 acre feet in 2012. This 35% reduction in Rio Grande surface water supply within the LRG Water Master District is a direct reflection of the lack of snowpack and the almost non-existent runoff witnessed in accounting year 2013.

In 2013, a total of **332,409.7 acre feet** of groundwater was diverted within the LRG Water Master District. This is a 3% increase in groundwater diversions over the 2012 accounting year. Of the described total diversion, 286,050.0 acre feet was diverted for irrigation purposes (7% increase from 2012), and 23,307.7 acre feet was diverted municipal use (7% decrease from 2012). Below is a table depicting diversion totals by use for 2011, 2012, and 2013.

2011 Metered Diversions

2012 Metered Diversion

2013 Metered Diversion

Agriculture	182.0 (acre feet)	Agriculture	109.6 (acre feet)	Agriculture	35.5 (acre feet)
Commercial	3628.9	Commercial	152.1	Commercial	3810.4
Construction	29.9	Construction	67.0	Construction	31.2
Cemetery	131.0	Cemetery	152.1	Cemetery	160.8
Dairy	1840.4	Dairy	2506.2	Dairy	1577.3
Domestic	790.0	Domestic	440.9	Domestic	394.3
Exploratory	2.5	Exploratory	318.3	Exploratory	58.8
Feed Pen Op.	5.5	Feed Pen Op.	5.3	Feed Pen Op.	12.5
Industrial	530.2	Industrial	892.0	Industrial	1,885.1
IRRIGATION	279368.2	IRRIGATION	265321.3	IRRIGATION	286,050.0
Military	126.2	Military	116.4	Military	289.0
Mutual Dom.	6718.8	Mutual Dom.	13785.0	Mutual Dom.	7651.5
Manufacturing	49.7	Manufacturing	7.5	Manufacturing	6.7

MH Park	354.7	MH Park	408.1	MH Park	444.3
Multi-Domestic	195.8	Multi-Domestic	83.8	Multi-Domestic	336.4
Municipal	24693.0	Municipal	25054.9	Municipal	23307.7
Mining	240.5	Mining	13785.0	Mining	0.0
PDL	0.3	PDL	4.6	PDL	5.1
PMH	6.7	PMH	5.8	PMH	17.0
PUB	0.7	PUB	0.0	PUB	0.0
Pre Basin Dom.	58.7	Pre Basin Dom.	73.2	Pre Basin Dom.	110.7
Recreation	84.2	Recreation	80.3	Recreation	71.2
School	1375.5	School	2203.3	School	2345.1
Sanitary	48.9	Sanitary	60.0	Sanitary	554.8
Stock	9.5	Stock	8.8	Stock	12.4
Subdivision	4230.6	Subdivision	1660.0	Subdivision	0.0
Utility	905.8	Utility	672.0	Utility	641.0
				Pollution Control	201.3
Est. Domestic	2400.0	Est. Domestic	2400.0	Est. Domestic	2400.0
2011 Total	328008.2	2012 Total	323128.4	2013 Total	332409.7

In the Hot Springs Underground Water Basin, a total of 2,541.6 acre feet was diverted under the jurisdiction of the LRG Water Master in 2013, of which 1,145.2 was diverted for irrigation purposes, and 1,329.7 was diverted for municipal purposes. This municipal use includes the water rights on file with the SE for the City of Truth or Consequences.

In the Las Animas Underground Water Basin a total of 117.0 acre feet was under the jurisdiction of the LRG Water Master in 2013, of which 114.0 was diverted for irrigation purposes. Only 3.0 acre feet of groundwater was diverted for a use other than irrigation in the Las Animas Basin.

2014 ACCOUNTING YEAR OUTLOOK

At the time of this report, the United States Department of Agriculture's (USDA), Natural Resource Conservation Service (NRCS) website for the Upper Rio Grande Basin watershed was reporting a basin wide snow water equivalent index number of 85% of normal, or 15% below average. Additionally, the NRCS monthly New Mexico Basin Outlook Report for March 2014 indicates that if forecasted above normal temperatures and wind manifest. Then runoff from the Rio Grande watershed into Rio Grande Basin reservoirs could potentially be less than 50% of normal. If this holds true, then it could be anticipated that reservoir levels at both Elephant Butte and Caballo would drop significantly after the release of usable Rio Grande project supply currently in storage, thus limiting the amount of additional surface water supply that would be available to Rio Grande Project lands within the LRG Water Master District later in the season.

The EBID board of directors, at their monthly meeting in March of 2014, indicated that the allotment for their water users is anticipated to be between 6.2 and 6.5 acre inches (0.51 – 0.54 acre feet per acre) based on the amount of usable water available in both Elephant Butte and Caballo reservoirs. If this allotment does not change prior to the start of the 2014 irrigation season, it should be anticipated that supplemental ground water diversions for irrigation purposes will continue to be upwards of 275,000 acre feet in order to offset the lack of surface supply. All other uses not affected by available surface water supplies are expected to maintain their observed three year averages, resulting in an anticipated total groundwater diversion in the 2014 accounting year of 325,000+ acre feet.

