

# **The New Mexico/Texas Allocation Dispute: City of El Paso Perspective**

by Douglas G. Caroom  
and Susan M. Maxwell  
Delgado, Acosta & Bickerstaff, Heath, P.L.L.C.

Law of the Rio Grande: Environmental, Compact and Priority  
Administration Issues in a Time of Drought  
January 23-24, 2003

## **I. El Paso's Role in Regional Water Planning**

El Paso Water Utilities ("EPWU") governed by the Public Service Board ("PSB") is the water and wastewater utility for the City of El Paso, providing service not only to the metropolitan area but to various wholesale and retail customers in outlying areas. In that capacity, the City and EPWU are major stakeholders in local and interstate issues involving water supply, water rights, and water quality of the Rio Grande. El Paso has also assumed a leadership role in cooperative planning, development and management of water resources for the Far West Texas region. As of 1995, the Texas Legislature has designated PSB as the regional water and wastewater planner for this part of Texas.

In order to address increasing and changing needs in the region, EPWU seeks to implement the Regional Sustainable Water Project, the subject of extensive planning by EPWU as well as other state, local, and bi-state entities throughout the region, collectively known as the New Mexico-Texas Water Commission. Using federal, state, local, and bi-state funds, a thorough analysis of regional alternatives was performed. The International Boundary and Water Commission's Final Environmental Impact Statement on the El Paso-Las Cruces Regional Sustainable Water Project was issued in November 2001 and selected surface water treatment options in New Mexico and El Paso as preferred options to augment regional water supplies. The Sustainable Water Project would not only utilize available surface water as the regional source of supply, but it would also allow EPWU cost effectively to address implementation of new arsenic removal requirements promulgated by the U.S. Environmental Protection Agency and development of an aquifer storage and recovery project. Under the aquifer storage and recovery project, surface water could be treated during times of abundance and injected underground into the Hueco Bolson for subsequent retrieval under drought conditions when surface water is unavailable. EPWU currently needs an additional 50,000 to 90,000 acre-feet of surface water per year in order to implement the Sustainable Water Project. Adequate water supplies, however, are uncertain, as the El Paso County Water Improvement District No. 1 ("EPCWID") has withdrawn from the Project and announced that it would not supply water for it.

## **II. El Paso's Perspective on Its Future Water Supply**

### **A. Current Demand and Current Sources of Supply**

#### ***1. Successful Conservation Efforts***

El Paso recognizes that water conservation is the most economical way for it to achieve savings and meet projected water use demands. EPWU has been a leader among metropolitan centers, not only in Texas but across the nation, in developing and implementing innovative, aggressive, and successful water conservation measures in order to preserve sustainable long-term supplies of potable water for the communities it serves. Based on the recommendations of a Citizens' Advisory Committee named by PSB in 1990, EPWU examined all areas of water use and implemented a number of water conservation measures, including encouraging plumbing code changes, water system optimization, higher water costs through the establishment of an increased block rate structure, and the passage of a mandatory water conservation ordinance. The City Council approved such an ordinance in 1991, which amended the plumbing code, applies to all persons who use water from EPWU's supply system, and includes year-round mandatory restrictions and regulations on landscape watering, watering times, car washing, water waste, repair of leaks, and conservation plan requests for large water users. With these measures, El Pasoans have reduced per capita water consumption from 200 gallons per person per day used in 1989 to 155 gallons per person in 2002. EPWU's current strategic plan calls for even further reductions, to bring overall per capita consumption down to 140 gallons per person per day by 2010.

## 2. *Innovative and Extensive Reuse*

El Paso has also been a pioneer in water reclamation for many decades, receiving international recognition for its innovative uses of recycled water. EPWU operates the most extensive and advanced reclaimed water system in Texas for industrial use and landscape irrigation. Wastewater is collected and treated from one of EPWU's four wastewater reclamation plants using advanced or tertiary treatment, resulting in water quality that meets the highest standards. This effluent is used to recharge the groundwater aquifer, subsequently becoming part of the City's water supply. One of EPWU's wastewater treatment plants was the first in the world to meet Drinking Water Standards for its reclaimed water. The other three plants meet the highest possible quality rating of Type I reclaimed water, as described in Texas State regulations and monitored by the Texas Commission on Environmental Quality ("TCEQ"). EPWU currently supplies the El Paso Electric Company, Painted Dunes Golf Course, Ascarate Golf Course and the Bowen Ranch with over two million gallons per day of reclaimed water. Other new initiatives include the NW Wastewater Reclamation Facilities Project, which will provide 5 million gallons of reclaimed water through 103,000 linear feet of pipeline to various locations in Northwest El Paso, and a project to supply up to 3 million gallons of reclaimed water through 8,000 linear feet of pipeline, from the Bustamante Wastewater Plant to the Riverside International Industrial Center.

## 3. *Current Sources of Supply*

Until the early 1940's, El Paso relied completely on groundwater for its water supply.<sup>1</sup> Upon building its first treatment plant for Rio Grande water, the City entered into a contract with EPCWID and the United States Bureau of Reclamation ("USBR"), under which the City receives Rio Grande water from EPCWID for land (not to exceed 2,000 acres) that the City owns within EPCWID's boundaries. Under a similar contract entered into several years later, the City is entitled to receive Rio Grande water from Elephant Butte Irrigation District ("EBID") for land that the City owns within EBID's boundaries. However, the City has not been able to obtain this water supply from New Mexico. Since its initial contract in 1941 for water from the Rio Grande Project, the City has entered into several other contracts with EPCWID and USBR, under which it receives additional river water based on long-term leases from small parcels of land within EPCWID and based on an exchange for deliveries of treated sewage effluent made available to EPCWID for irrigation. Over the years, El Paso has made a concerted effort to obtain more of its water supply from renewable surface water, in order to preserve scarce groundwater resources for drought years in which river water is not available. In 2001, El Paso obtained 39% of its water supply from surface water from the Rio Grande, its largest single source of supply. Rio Grande water is not available to the City throughout the year, however. Even during full allotment years, river water is available only during the irrigation season, is sometimes of too poor quality to be used for municipal supply, and is becoming increasingly expensive.

Historically, the Hueco Bolson has been El Paso's principal source of supply, but current studies indicate that the supply of recoverable freshwater from the Hueco Bolson will be exhausted by 2025 or 2030 at current pumping rates.<sup>2</sup> Projections of the Region E, Far West Texas, Water Planning Group indicate that by the year 2030 under drought conditions El Paso will have a water shortage of 162,505 acre-feet per year.

---

<sup>1</sup> Boyle Engineering Corp., El Paso Water Resource Management Plan 1991-2040, at 3 (fig. 1.1, City of El Paso, Historic Water Use) (Dec. 30, 1992).

<sup>2</sup> Texas Water Development Board, *Water for Texas 2002*, at 43 (Jan. 2002).

This shortage is projected to increase to 199,087 acre-feet per year by the year 2050.<sup>3</sup> These projected shortages coincide with the exhaustion of the Hueco Bolson as a source of supply and underscore El Paso's urgent need to develop alternatives to that limited, irreplaceable source of supply prior to that time. El Paso has steadily reduced its pumpage from the Hueco Bolson since 1989, to the point where this source supplied 41% of the City's total water demand in 2001.

El Paso also pumps groundwater from a series of production wells located within the Canutillo well field of the Mesilla Bolson, located along the Rio Grande in Texas. While the quality of this groundwater is sometimes marginal, this source provided 20% of El Paso's water supply in 2001. The City's Canutillo wells, however, have become a source of some disagreement between the City and EPCWID and USBR, who believe that part of El Paso's pumpage from these wells is actually "underflow" of the Rio Grande, that is, water flowing through the sand and gravel below the surface of the streambed. With respect to this issue, it is crucial to note that Texas law distinguishes between percolating groundwater and underflow, with a presumption that underground water is percolating groundwater.<sup>4</sup> The rule of capture, addressed in Section II.A below, governs ownership of percolating groundwater, while state laws governing appropriations of surface water govern ownership of underflow of a river or stream.

#### **4. *Projected Demand***

EPWU provides water and wastewater service to the City of El Paso, as well as other areas in the region outside the City, on both a wholesale and a retail basis. The total population currently served is approximately 700,000. Included within this population are approximately 125 colonias with a population of 50,000 to 60,000. EPWU is the largest supplier of water to colonias in the State of Texas. The population served by El Paso has increased by 3% in the last decade and is projected to increase at a rate of almost 2% in the future, reaching a total of 1.5 million by the year 2050.<sup>5</sup>

#### **5. *Costs of Alternative Sources of Supply***

Comparing the costs of alternative sources of future water supply for El Paso, surface water is clearly the City's best and most economical alternative. Two other primary alternatives under consideration are desalination and importation of groundwater from areas to the east of El Paso. The City's desalination project will be addressed later in the program by EPWU's General Manager, Ed Archuleta. In terms of cost comparison, El Paso estimates that desalination will cost \$700 per acre-foot, exclusive of the costs of brine disposal associated with the desalination operation.

El Paso is also currently exploring the possibility of importing groundwater pumped from the Dell Valley, an area that is part of a larger groundwater basin extending into New Mexico. High salinity of this groundwater, however, would require desalination and brine disposal if EPWU were to develop this source for municipal supply. This alternative of groundwater importation is estimated to cost approximately \$1,400 per acre-foot to make water available in the EPWU delivery system. In addition, there are other possible obstacles to the feasibility of Dell Valley groundwater importation as an alternative source of water supply for El Paso.

---

<sup>3</sup> Region E (Far West Texas) Regional Water Plan, Executive Summary, *available at* <http://www.twdb.state.tx.us/assistance/rwpg/main-docs/regional-plans-index.htm>.

<sup>4</sup> *Texas Co. v. Burkett*, 296 S.W. 273, 278 (Tex. 1927).

<sup>5</sup> Texas Water Development Board, *Water for Texas 2002*, at 26 (table 5-1) (Jan. 2002).

First, regulatory limits imposed by the Hudspeth County Underground Water Conservation District No. 1 (“HCUWCD”) would severely limit production that is authorized from within the district. Second, the New Mexico Interstate Stream Commission has recently applied for permits to appropriate substantial quantities (90,000 af/yr) of groundwater from the Salt Basin in New Mexico. These applications reflect that this water would be delivered outside that basin, to augment New Mexico’s required deliveries to Texas under the Pecos or Rio Grande Compacts and possibly also for municipal, commercial, and industrial uses in New Mexico. If this Salt Basin supply were developed, it would intercept virtually all of the recharge currently supporting pumping in the Dell City area in Texas.

By comparison, EPWU’s cost to treat and make surface water available under its above-mentioned contracts with EPCWID is approximately \$300 per acre-foot. Even under the considerably higher rates that EPCWID charges the City under their most recent (2001) contract (currently approximately \$500 per acre-foot and escalating to \$560 per acre-foot by 2010), acquisition of additional renewable surface water remains the City’s most cost-efficient water supply strategy.

## **B. Conclusion**

Through its planning and water management programs, El Paso seeks to exercise good stewardship over the surface water and groundwater resources in the region, in order to assure sustainable high quality supply for the growing community it serves. In order to do so, the City continues to implement innovative and aggressive conservation measures and to develop other alternative sources of supply. As part of its overarching strategy, El Paso must be able to rely on greater quantities of surface water from the Rio Grande, in years when that water is available. As a result, El Paso is a major stakeholder in a number of issues relating to availability and quality of Rio Grande water for Texas, as discussed below.

## **III. El Paso’s Perspectives on Allocation Issues**

### **A. Water Quantity: How Much Water Does Texas Get?**

The Texas-New Mexico allocation is being addressed by Jerome Muys and will not be addressed herein, except to point out one challenging issue: Texas groundwater law. As discussed above, groundwater pumped from the Hueco and Mesilla Bolsons in Texas remains a significant source of El Paso’s water supply. Because these aquifers underlie parts of both Texas and New Mexico, water users in both states confront issues regarding controls over groundwater production. Based on the significant differences between Texas groundwater law and New Mexico’s approach to ownership and management of this resource, some entities with an interest in Rio Grande water have questioned whether such inconsistencies in the states’ laws must be addressed in order to resolve issues of interstate allocation of river water and groundwater hydrologically connected to it. In particular, the United States’s assertion that some groundwater is part of what constitutes “Project water” would seem to require that the legal principles governing this groundwater must be established.

Most western states, including New Mexico, use the doctrine of prior appropriation to administer rights to groundwater, and all of them have severely modified the common law “rule of capture” with respect to groundwater.<sup>6</sup> Texas, on the other hand, is still a “rule of capture” state, in which groundwater is not state

---

<sup>6</sup> See generally 3 WATERS AND WATER RIGHTS, ch. 24 (Robert E. Beck ed., 1991).

water but the private property of the owner of the surface estate.<sup>7</sup> Under Texas law, a landowner may without liability pump underground percolating water to such an extent that springflow is eliminated and water available for senior surface water rights is reduced.<sup>8</sup> As modified by major water legislation in the 1997 and 2001 sessions of the Texas Legislature, Texas provides for regulation of groundwater resources by local groundwater conservation districts, created on a local option basis.<sup>9</sup> To date, no such groundwater districts have been created in El Paso County or the Hudspeth County area associated with the Rio Grande water at issue in interstate matters.

El Paso fundamentally disagrees with the United States's theory of what constitutes "Project water" in Texas. El Paso believes that the differences between New Mexico's and Texas's groundwater management regimes need not interfere with an allocation of Rio Grande water between the states. Any impact of groundwater pumping in Texas upon New Mexico Rio Grande deliveries is anticipated to be modest and easily compensated for in the calculation of state-line deliveries.

## **B. Water Quality: How Can Interstate Water Quality Issues Be Addressed?**

From El Paso's perspective, the quality of Rio Grande water received by Texas must be considered in any determinations regarding interstate allocations. Certainly for municipal and industrial uses, the quantity of water matters little if the quality makes it unusable. Return flows and storm water runoff from irrigation of agriculture are exempted from the definition of point source pollution, for purposes of enforcing water quality standards under the federal Clean Water Act.<sup>10</sup> The Rio Grande Compact (the "Compact") also states that its provisions shall not be construed as "an admission by any signatory State that the use of water for irrigation causes increase of salinity for which the user is responsible in law." Nonetheless, the same article of the Compact provides that nothing in the Compact shall be interpreted to prevent Texas from seeking relief in the United States Supreme Court if another signatory state changes the character or quality of the water at the point of delivery, to the injury of Texas.<sup>11</sup>

While the principal water quality issue is the salinity of the Rio Grande as it arrives downstream, until very recently the segment of the river from the Texas border to Leasburg Dam was included on New Mexico's Clean Water Act section 303(d) list of impaired water bodies, because of excessive levels of total ammonia, chlorine, pH, and streambottom deposits. If water quality issues are not expressly considered in interstate allocations, and if other sources (along with salinity) contribute to the impairment of the Rio Grande for its designated uses, New Mexico remains vulnerable to water quality challenges through other legal mechanisms.

---

<sup>7</sup> See generally TEX. WATER CODE ANN. § 36.002 (Vernon Supp. 2003); *Sipriano v. Great Spring Waters of America, Inc.*, 1 S.W.3d 75 (Tex. 1999).

<sup>8</sup> *Pecos County Water Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503 (Tex. Civ. App.—El Paso 1954, writ ref'd n.r.e.).

<sup>9</sup> TEX. WATER CODE ANN. § 36.0015 (Vernon Supp. 2003).

<sup>10</sup> See 33 U.S.C. § 1362(14).

<sup>11</sup> Rio Grande Compact, art. XI. TEX. WATER CODE ANN. § 41.009 (Vernon 2000).

### **C. Remedies: Equitable Apportionment**

Over the years, various stakeholders in Rio Grande water have interpreted the Rio Grande Compact in terms of whether the Compact itself accomplishes an allocation of river water between Texas and New Mexico. As presented in this program by Jerome Muys, the State of Texas takes the position that the Compact does effect an interstate allocation. The United States's argument, articulated in the Texas Adjudication, would reach the same conclusion from a different approach: All water allocated under the Compact for Texas ("Texas" in this context including irrigated acreage in New Mexico below Elephant Butte Reservoir) goes to the Rio Grande Project, and USBR's contracts with the irrigation districts accomplish an allocation between Texas and New Mexico.

Even if the Compact itself does not work an apportionment between the states, and there is case law that supports this conclusion,<sup>12</sup> from El Paso's perspective an original action for equitable apportionment as an alternative cause of action to a Compact enforcement claim presents a viable option for resolution of the interstate dispute over Rio Grande water.<sup>13</sup> Notwithstanding, or perhaps because of, the fact that New Mexico and Texas are each proceeding with their respective Rio Grande adjudications, a cause of action for equitable apportionment may be necessary. Neither state's adjudication will limit the water rights adjudicated to the state's available supply—for availability is not the essence of general stream adjudications—but each will simply recognize water rights *inter se* and their relative priority to use water from the state's share of the Rio Grande. Moreover, as litigation in the New Mexico Adjudication and preliminary briefing in the Texas Adjudication make clear, there is substantial likelihood of significant inconsistencies emerging from these contemporaneous proceedings. For example, both states are considering adjudicating the storage rights of the United States associated with Project water.

### **D. Conclusion**

In the 1980's El Paso attempted unsuccessfully to obtain groundwater permits from New Mexico. The New Mexico State Engineer rejected El Paso's groundwater permit applications because El Paso could not demonstrate a need for the water within 40 years, as required by New Mexico statutes. In settling this litigation, El Paso agreed that it would attempt to utilize available water resources, particularly surface water resources, in Texas prior to seeking water from New Mexico.

El Paso has pursued this strategy, and continues to do so; however, in order for this strategy to be effective, Texas needs a well defined source of water and El Paso needs access to that water. An alternative to interstate litigation, certainly preferable to El Paso, would be development of even a limited water market with water rights holders in New Mexico. During times of shortage when agricultural prospects may not be promising, a viable mechanism to allow marketing of New Mexico water to El Paso would be mutually beneficial for the City and New Mexico water rights holders. Development of such a market mechanism would relieve much of the pressure developing in Texas for interstate litigation and an allocation of Rio Grande supplies. Moreover, development of a market would benefit a regional economy which, in spite of state lines, includes both El Paso and much of Dona Ana County in New Mexico.

---

<sup>12</sup> See *City of El Paso v. Reynolds*, 563 F. Supp. 379 (D.N.M. 1983).

<sup>13</sup> See *Kansas v. Colorado*, 206 U.S. 46 (1907) (deciding an original action for injunctive relief, where Colorado claimed a sovereign right to use the Arkansas River's entire flow for its entire benefit, regardless of any injury such use might cause downstream users).

