

## **Middle Rio Grande Regional Water Plan Key Actions Taken Since the Plan's Acceptance in 2004.**

The 2004 Middle Rio Grande Regional Water Plan identified a 15 to 20% ongoing shortfall of renewable supplies of water relative to consumptive (evaporative and vegetative) uses of water. Numerous efforts have been expended and actions taken toward solving the Middle Rio Grande's water problems since the governmental acceptance of that Regional Water Plan. This 2010 note identifies the major events, projects, new information, and policy changes that have had an impact upon the Region's ongoing net deficit spending of water (both positive and negative). We also recognize the efforts of many other government entities, businesses, and non-governmental organizations that have exerted efforts toward meeting the mission and/or recommendations of the Regional Water Plan.

1. The Albuquerque/Bernalillo County Water Utility Authority developed the San Juan / Chama drinking water treatment plant and distribution system. The use of this new system permits a major reduction in the pumping from the aquifer. As a result, aquifer levels are expected to reverse their decline and rise for the near future time frames. Effect on consumptive use is seen to be minimal.
2. Several agencies including the City of Albuquerque and the Middle Rio Grande Conservancy District have conducted Bosque and ditch bank restoration projects, removing salt cedars in favor of cottonwoods, and creating more open parks. Some scientists believe that these projects will reduce consumption of water in the treated areas.
3. The Water Utility Authority and the City of Rio Rancho have aggressive conservation programs which have resulted in reduced numbers of gallons per capita per day (10% and 21%). Total use by the WUA was reduced by 5%, and was increased by 9% in Rio Rancho. Bernalillo County and many of the smaller municipalities have passed water conservation ordinances.
4. The Water Utility Authority and the City of Rio Rancho have experimented with and established plans for underground storage of water in the aquifers. If recovery fractions meet expectations, this storage approach will reduce evaporative losses from reservoirs, whose use could be reduced.
5. The Middle Rio Grande Conservancy District has reduced its irrigation diversion of river water by about 40%, as a result of major improvements in the distribution system. That substantial reduction in diversions will result in some, relatively small, fractional reduction in the Districts' consumption of water.
6. The City of Rio Rancho is pursuing a water reuse system which, when completed, is expected to reduce the City's pumping of the aquifer, but have minimal effect on the consumptive uses of water.
7. The University of New Mexico (among many others) has conducted studies that predict lower snowpack and increased evaporation. These studies suggest an ongoing adverse impact upon the Region's consumptive deficits.
8. Sandia National Laboratories, the Bureau of Reclamation, and the Corps of Engineers have improved the modeling of the Rio Grande river system, which should enable more incisive management of the river. If wisely used, the improved modeling is anticipated to have a positive impact upon the Region's consumptive deficit.
9. The U.S. Fish and Wildlife Service is developing a revised Biological Opinion in support of the endangered species in the Rio Grande. The impact of the BO on the Region's available supplies is unknown. Both positive and negative conjectures have surfaced.
10. The New Mexico Interstate Stream Commission, the City of Albuquerque, and others have developed refugia for the endangered silvery minnow. These will ease the pressure on the endangered species, and possibly mitigate effects from the new Biological Opinion.
11. Many major and minor Court decisions and a few relevant legislative changes have occurred since 2004. It is not clear what their effect, if any, will be upon the Region's renewable/consumptive balance.
12. It has recently been recognized that prior commitments to offset river impacts from groundwater pumping ("dedications") equal or exceed the total acres under irrigation. These are debts that will have to be repaid in wet water, not dollars.
13. The New Mexico Interstate Stream, Commission built a conveyance channel through the sal cedar marshes near Elephant Butte. This will surely allow better downstream deliveries against the Rio Grande Compact, and thus allow for more available supply.
14. Sandoval County is conducting a substantial experiment to determine the engineering and financial feasibility of pumping, cleaning, and delivering deep aquifer saline water. The aquifer under test appears finite and limited in size (not renewable), so the impact upon the Region's overall supply situation will be minor. However, if successful, this project could act as a buffer in times of drought, ease a little of the pressure on the Rio Rancho freshwater aquifers, and serve as a prototype for using saline waters elsewhere in the State.
15. Valencia County developed a political coordination process for distributing non-agricultural water among municipalities and rural areas across the County.

# Middle Rio Grande Regional Water Plan – 2004 – List of Recommendations

(See chapter 10.2 of the RWP for the full text of the recommendations - [www.WaterAssembly.org](http://www.WaterAssembly.org))

## Mission of the Plan: “Balance Water Use with Renewable Supply”

### Urban and Rural Conservation Activities

- R1-1 *Establish a Domestic Well Policy*
- R1-2 *Outdoor Conservation Programs*
- R1-3 *Rainwater Harvesting*
- R1-4 *Conversion to Low Flow Appliances*
- R1-5 *Urban Water Pricing*
- R1-6 *Greywater Reuse*
- R1-7 *Treated Effluent Re-use*
- R1-8 *Growth of Parks and Golf Courses*
- R1-9 *Recognize Urban and Economic Vitality in the Region*

### Water Resources Planning and Management

- R2-1 *Adjudication and Water Rights Settlement*
- R2-2 *Conjunctive Use Management*
- R2-3 *Funding Source for Water Activities*
- R2-4 *Elephant Butte Loss Accounting*
- R2-5 *Active Administration*
- R2-6 *Water Resource Database*
- R2-7 *Watershed Management Plans*
- R2-8 *Comprehensive, Integrated, and Continued Water Planning*
- R2-9 *Storm Water Management Plans*
- R2-10 *Cooperative Regional Water Management*
- R2-11 *Water Banking*
- R2-12 *Land Use Management and Planning*

### Water Monitoring and Measurement

- R3-1 *Measure All Water Uses*

### Agriculture

- R4-1 *Upgrade Agricultural Conveyance Systems*
- R4-2 *Level Irrigated Fields*
- R4-3 *Establish a Local Marketing Infrastructure*
- R4-4 *Acequia Efficiency Programs*
- R4-5 *Recognize Agricultural Traditions in the Region*

### Water Quality

- R5-1 *Mitigate Septic Tank Impacts*
- R5-2 *Improved Water Quality Sampling and Testing*
- R5-3 *Protect Water from Contamination*

### Bosque and Other Riparian Habitats

- R6-1 *Riparian Habitat Restoration*
- R6-2 *Constructed Wetlands*
- R6-3 *River Restoration*
- R6-4 *Recognize the Importance of Healthy Native Ecosystems of the Rio Grande and its Tributaries*

### Water Storage to Reduce Evaporative Losses

- R7-1 *Implement Upstream Surface Water Storage*
- R7-2 *Implement Upstream Aquifer Water Storage*
- R7-3 *Implement Aquifer Storage and Recovery for Drought*
- R7-4 *Water Modeling*

### Desalination and Transfer of Water

- R8-1 *Develop New Water Supplies through Desalination*
- R8-2 *Investigate the Potential for Importing Water*
- R8-3 *Undeclared Water*

### Public Education

- R9-1 *Develop a Water Education Curriculum for Schools*
- R9-2 *Implement Adult Public Education Programs*