

## 1. Identified Gaps between Supply and Demand

Estimating the balance between supply and demand requires consideration of several complex issues, including:

- Because of the nature of the Rio Grande Compact, the supply available to the Middle Rio Grande region is inextricably linked to that of the Jemez y Sangre and Socorro-Sierra regions. Issues that affect those regions could affect the Middle Rio Grande and vice-versa.
- Both supplies and demands vary considerably over time, and although long-term balanced supplies may be in place, the potential for drought or, conversely, high flows and flooding must be considered. In general, storage, including the capture of extreme flows for future use, is an important aspect of allowing surface water supplies to be used when needed to meet demand during drought periods (i.e., reservoir releases may sustain supplies during times when surface water supplies are inadequate).
- In wet years when more water is available than in 2010, irrigators can increase surface water diversions up to their water right and reservoirs will fill when inflow exceeds downstream demand, provided that compact requirements are satisfied to increase storage for subsequent years. Thus, though not quantified, the diversions in wet years may be greater than the high projection.
- Supplies in one part of the region may not necessarily be available to meet demands in other areas, particularly in the absence of expensive infrastructure projects. Therefore comparing the supplies to the demands for the entire region without considering local issues provides only a general picture of the balance.
- As discussed in Section 6.5.1, the fluctuations in reservoir evaporation are expected to be greater than the projected high/low range developed for this balance. When comparing the projected demands to the administrative water supply, which is based on 2010 water use, 2010 surface areas were used to avoid an unrealistic scenario of excess available water. The actual amount of water that will be used for reservoir evaporation is dependent on the surface area of the reservoir and temperatures.
- As discussed in Section 4, there are considerable legal limitations on the development of new surface and groundwater resources, given that surface and surface-connected

groundwater supplies are fully appropriated, which affects the ability of the region to prepare for shortages by developing new supplies.

- Besides quantitative estimates of supply and demand, numerous other challenges affect the ability of a region to have adequate water supplies in place. Water supply challenges include the need for adequate funding and resources for infrastructure projects, water quality issues, location and access to water resources, limited productivity of certain aquifers, and protection of source water.

Despite these limitations, it is useful to have a general understanding of the overall balance of the supply and demand. Figure 7-1 illustrates the total projected regional water demand under the high and low scenarios, and also shows the administrative water supply and the drought-adjusted water supply. Future water demand projections reflect moderate growth under the low projection and higher growth in high projection (Figure 7-1). Even without the projected growth in demand, major supply shortages are indicated in drought years. Because of its reliance on surface water, the region has a very high degree of vulnerability to drought, and the estimated annual shortage in drought years is expected to range from 207,357 to 282,108 acre-feet.

## **2. Implementation of Strategies to Meet Future Water Demand (Prepared by the Regions)**

### **8.1 Water Conservation**

### **8.2 Implementation of Strategies Identified in Previously Accepted Regional Water Plan**

### **8.3 Proposed Strategies (Water Programs, Projects, or Policies)**

### **8.4 Evaluations**

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