



Goal 5: Environmental Protection and Enhancement

Desired Community Condition: **Water resources are sustainably managed, conserved and protected to provide a long term supply and drought reserve.**



Indicator: **Renewable and Nonrenewable Sources of Albuquerque Water Supply**

Progress Rating: Local Trend: STABLE National Comparison: NOT APPLICABLE

Indicator Description

The aquifer that lies below the area is currently the sole source of water for the customers of the Albuquerque Bernalillo County Water Utility Authority. To protect the aquifer, a new Water Resources Strategy is being implemented. This will help transition to a sustainable water supply that the area can count on in perpetuity and that is reliable under any circumstance. This new strategy reduces ground water pumping to the amount that is renewable. This indicator measures the percent of the water that comes from renewable sources now and into the future.

Why is this indicator important?

Continued reliance on the aquifer will lead to serious water quality degradation and ultimately to land surface subsidence. Land surface subsidence will damage buildings and infrastructure and permanently destroy portions of the aquifer. In addition, lowering of the shallow ground water table could permanently affect the Bosque and the Rio Grande. The U.S. Geological Survey published a report in 2003 that for the first time showed a land surface response to the utility's ground water pumping. Although the response was minimal, the effect is nonetheless a sign that ground water pumping does affect the land above it. To protect the aquifer, implementation of a 1997 Water Resources Strategy for transitioning to a sustainable water supply is occurring.

In the 1960s, the City contracted for river water from the San Juan-Chama Diversion Project to provide for future supplies. By taking this water from the river and purifying it, the area will have a major new sustainable component of high quality drinking water supply, all of which is renewable. Recycled water and shallow ground water can be put to efficient use for industrial processing or irrigation. The first recycling project is at Balloon Fiesta Park and Soccer Fields and was complete in 2000. The second project using non-potable surface water is under construction and becomes operational in July 2004. This project will utilize a portion of the San Juan-Chama water for the first time ever.

Data Sources

Albuquerque Bernalillo County Water Utility Authority; US Geological Survey

What can we tell from the data?

- Recently, the US Geological Survey re-characterized the Middle Rio Grande groundwater basin and its relationship to the Rio Grande, learning that the quantity of economically recoverable good quality water in

the aquifer is much less than previously thought. According to these studies, less than half of the groundwater pumped is replaced by recharge from the Rio Grande.

- Albuquerque has rights to some surface water from the Rio Grande and the San Juan-Chama Diversion Project, a renewable source, which will be treated and used for part of its water supply. Full use of the utility's existing surface water resources and attainment of the 30% water conservation reduction goal, water reuse and reclamation projects and implementation of the drinking water project can provide a sustainable supply until 2060.
- The graph illustrates the strategy adopted demand curve by year with an apportionment of water resources required to provide a sustainable supply. The drinking water project, which includes diversion and direct use of the San Juan-Chama water, is anticipated to be completed in 2006. Additional water conservation measures are being considered to achieve a 40% reduction goal.

