New Mexico Ground Water Fact Sheet

Ground Water Importance

Demand for New Mexico's scarce and most vital natural resource, water, is ever increasing. Recent population projections indicate that by 2050 New Mexico's current population of 1.8 million will swell to 3.3 million people—a startling increase of 85%. If accurate, New Mexico's growth will be second only to that of California among western states. (NM Office of the State Engineer White Paper, October 17, 2002)

New Mexico's semi-arid climate yields an average of less than 15 inches of precipitation annually. While the water supply in some areas of the State is renewable, many communities rely solely on non-sustainable groundwater aquifers. In many areas of the State, the demands on the water supply will reach or exceed its availability in the decades to come.

Ground Water Use Statistics

90%-- Approximate percentage of NM population dependent on ground water for drinking water.

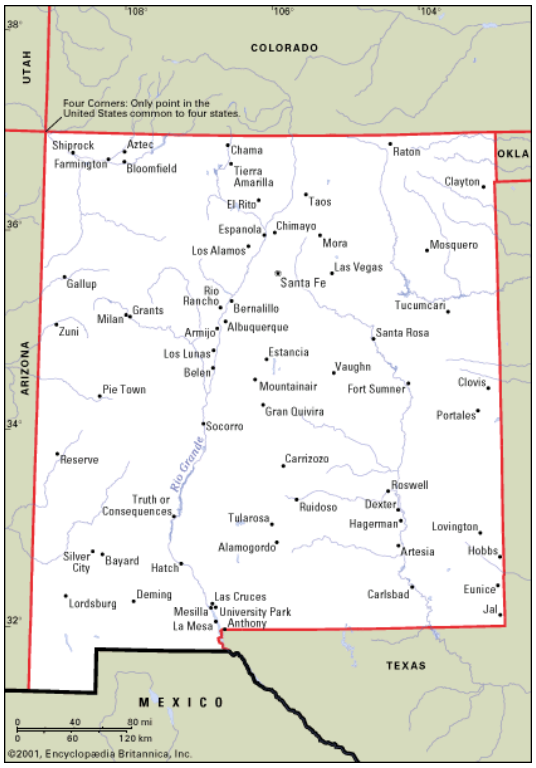
#1 -- Rank of New Mexico among western states based on reliance on ground water for drinking water.

78% -- Percentage of population served by public water systems with water derived from ground water

50% -- Approximate percentage of total statewide water withdrawal provided by ground water, including domestic use, industry and agriculture.

Where Is It?

Fresh ground water supplies are spread across New Mexico and occur in aquifers that extend over large areas and are extensively used; as well as in remote, limited extent, very deep or marginal quality aquifers that are used only on a small scale, if at all. Ground water levels within extensive aquifers such as in parts of the Rio Grande Valley and New Mexico's High Plains are declining at an alarming rate. In the eastern part of New Mexico, portions of the Ogallala Aquifer are expected to be dewatered within the next 10 years.



How Good Is the Water?

In general, the quality of New Mexico's ground water is very good. However, New Mexico has not implemented a full scale ambient ground water quality monitoring program. Background ground water quality samples are collected at most regulated facilities to ensure that ground water quality is not being impacted by facility operations. New Mexico is currently implementing a new Integrated Database for Environmental Assurance (IDEA) which, when fully populated, will have the capability to provide geographic based ground water quality data.

Costs of Contamination

Point sources of ground water contamination are regulated under New Mexico law and are required to be cleaned up to meet water quality standards. However, there are a

number of point source and non-point source contamination incidents for which there is no responsible party and thus no funding for cleanup. New Mexico relies on the federal Superfund program to provide funding for cleanup of many of these orphaned contamination incidents. However, Superfund resources are becoming less and less available which means that many of these orphaned ground water plumes will remain uncontrolled and unremediated.

New Mexico has also identified a number of areas where naturally occurring contaminants such as uranium, radon and fluoride have impacted domestic water supply wells. Well users within these known areas of naturally occurring contamination have been encouraged to use point of use treatment systems to prevent health related impacts related to ground water contaminants.

Efforts to Protect Ground Water

In 1977 the New Mexico Water Quality Control Commission established a ground water classification system that has two classes. Protected for present and potential future use as domestic and agricultural water supply is ground water that has a concentration of 10,000 mg/l or less of total dissolved solids (TDS). Not protected are any ground waters with a TDS concentration exceeding 10,000 mg/l, except insofar as they may impact other waters of better quality. Based on this classification system, New Mexico has generally viewed virtually every place in the state that is underlain by ground water that has a naturally occurring total dissolved solids concentration of 10,000 mg/l or less, if that water is capable of being withdrawn, as a place of reasonably foreseeable future use.

The cornerstone of New Mexico's ground water protection efforts is the state's discharge permit program that protects ground water quality through the issuance of pollution prevention permits. This program has been in place since 1977 and regulates all discharges that have the potential to adversely impact ground water quality including domestic wastewater discharges, mining operations, industrial facilities, and agricultural dischargers such as dairies and food processing plants. Permits are issued for a period of 5 years, and must be renewed in order to provide continuous coverage. As of December 2002, more than 850 discharge permits have been issued.

New Mexico is also implementing a Source Water Assessment Program to assist communities in protecting their drinking water supplies. This is accomplished by identifying potential sources of contamination, evaluating the susceptibility of wells and surface water intakes to contamination, and working with communities, water utilities and service providers to develop Source Water Protection strategies.

What Else is Needed?

Additional resources are needed for the following activities:

< Implementation of ground water quality protection outreach activities.
< Surveillance system to monitor ambient ground water quality throughout New Mexico.
< Evaluation of disposal practices for untreated discharges such as sludge and septage disposal, large volume septic tank/leachfields and some agricultural discharges.
< Identification and permitting of unpermitted dischargers, including outreach and enforcement as necessary.
< Development of cost-effective treatment technologies for nitrogen-based discharges such as food processing plants, dairies, and other agricultural facilities.
< Coordination of water quality and water quantity activities and initiation of joint quantity/quality decision making.
< Funding for ground water GIS efforts.