

# Fact Sheet

## Current Regional Water Demand

According to the New Mexico Interstate Stream Commission, a regional water plan should compile historical, current, and projected water demand data by category of use. Current and historical water demand in the Southwest New Mexico water planning region was obtained for the period 1975 to 2000 from the New Mexico Office of the State Engineer (OSE).

The OSE inventories water use in the state every 5 years and publishes the results in technical reports (Sorenson, 1977 and 1982; Wilson, 1986 and 1992; Wilson and Lucero, 1997; Wilson et al., 2003). During the 25-year period examined, the OSE has changed some of the categories it uses to define water use. Also, several OSE-defined categories, such as power and industrial, have little or no historical use in the Southwest water planning region. Because of this, we have streamlined the OSE categories into the following water use categories to reflect regional demand over time:

- Public and Domestic Water Supply
- Irrigated Agriculture
- Livestock
- Evaporation (included stockpond and playa evaporation during 1975, and stockpond evaporation until 1990)
- Mining
- Other (commercial, power, and industrial; also included fisheries and recreation during 1975 to 1985)

Figures 1 and 2 show historical withdrawals of surface water and groundwater from 1975 to 2000. Historically, the largest demand sector has been irrigated agriculture. Evaporation was a major surface water use category during 1970 to 1985; however, this reflects the inclusion of stockpond and playa lake evaporation during these years. These categories are no longer inventoried by the OSE. Livestock use is now the second largest use of surface water, far behind irrigation. Mining is the second largest use of groundwater in the planning area, primarily because of high usage in Grant County. Public water supply has been the third largest use of groundwater during the last 25 years.

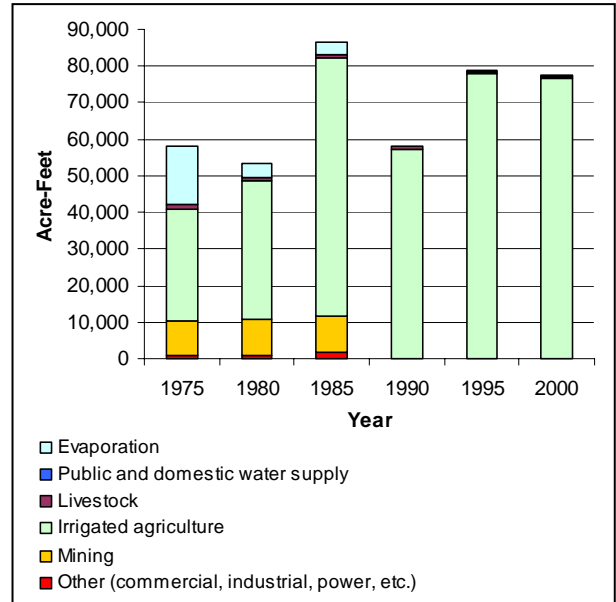


Figure 1. Historical Surface Water Withdrawals

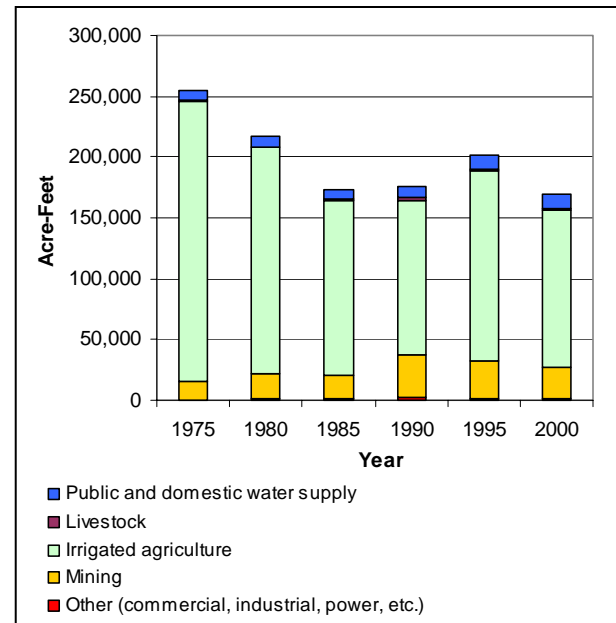


Figure 2. Historical Groundwater Withdrawals

Groundwater is relied on heavily throughout the water planning area; nearly three times as much groundwater is withdrawn as surface water. In particular, the region is dependent on groundwater for mining and public (and domestic) water supply purposes.

Figure 3 shows total depletions from 1975 to 2000. Depletion is the amount of water withdrawn less any water that returns to surface water or groundwater systems. For example, flow in agricultural drainage ditches is considered “return flow.” Surface water depletions have remained at around 20 percent of groundwater depletions for the last ten years, reflecting the regional dependence on groundwater.

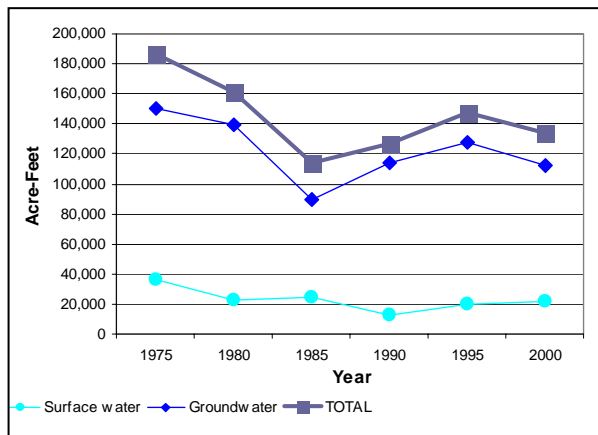


Figure 3. Total Historical Depletion in Region

Figures 4 and 5 show the historical depletions, by use category, of surface water and groundwater for 1975 through 2000. As shown in Figure 4, depletions of surface water resulting from evaporation dropped greatly from 1975 to 1990, reflecting a change in the way the OSE reported evaporation data. Both playa and stockpond evaporation were included in the 1975 figures, and stockpond evaporation continued to be

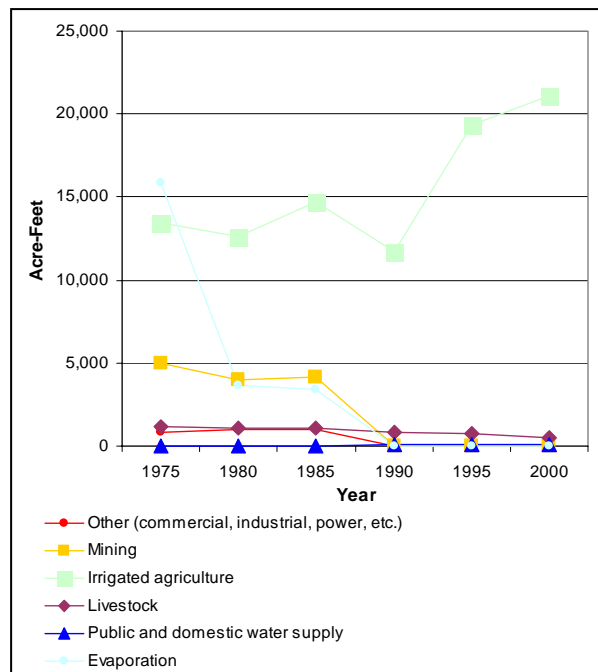


Figure 4. Historical Surface Water Depletion

reported until 1990, after which evaporation was considered only for reservoirs with a capacity of 5,000 acre-feet or greater. Consequently, depletions from evaporation are no longer significant.

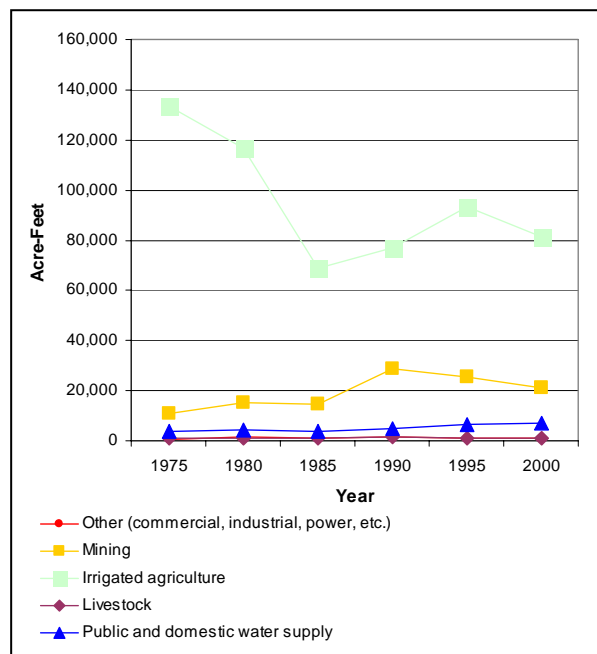


Figure 5. Historical Groundwater Depletion

Historically, irrigation has been the largest cause of surface water and groundwater depletion. Mining is the second largest cause of groundwater depletion, and public and domestic water usage a distant third.

**References**

Sorenson, E.F. 1977. *Water use by categories in New Mexico Counties and River Basins, and Irrigated and Dry Cropland Acreage in 1975*. Technical Report 41, New Mexico Office of the State Engineer. 34 p.

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