

Public Entrepreneurship: A Case Study in Ground Water Basin Management by Elinor Ostrom

“...By the 1930’s, the total annual production by all water producers located in West Basin regularly began to exceed the annual supply of fresh water to the basin. Water levels throughout the basin began to fall and, thus, increased the costs of production for all water producers. As water levels along the coast fell below sea level, salt water entered the basin in some areas underlying the coastal communities. The economy of the area continued to expand, especially during World War II, with the result that still larger quantities of water were withdrawn each year. As water levels fell further, salt water entered all along the coast and began to move inland, threatening the rest of the basin. Ground water production increased from over 52,000 acre-feet in 1941 to over 75,000 acre-feet in 1945; during the same period salt water intrusion also increased from close to 30,000 acre-feet to almost 47,000 acre-feet per year. From 1932 to 1945, a total of 400,000 acre-feet of salt water entered West Basin to replace an equivalent amount of fresh water withdrawn through the years in excess of the annual supply to the basin. The degree of salt water intrusion was dramatically demonstrated in the mid-1940’s as grass in school and park lawns died as a result of irrigation by ground water high in chloride content. Persistent salt water intrusion posed a serious threat to continued use of West Basin in a water supply system.

Unfortunately, during the early 1940’s, West Basin water producers did not, and could not know the total volume of annual withdrawals from the basin or the extent of natural replenishment. Most water producers were aware that total demand for ground water was far greater than the natural supply. They had evidence of overdraft conditions in their own well records which showed continuously falling water levels, but total demand and supply figures were only available in the 1950’s after extensive investigation by a court appointed referee. Individuals who had access to limited information about overdraft conditions in the early 1940’s held positions of responsibility in different independent water supply agencies. Individuals in one agency viewed individuals in other agencies as competitors, and considered minimization of information about the growing evidence of a water supply shortage as the appropriate strategy for dealing with competitors. As long as the individual firm was considered to be the appropriate unit for solving Water supply problems, communication among firms was held to a minimum...”