

water supply as a way to quick profits. They are unconcerned that the resource is limited.

The means of making beneficial use of the water supply has become available only in this generation, and the exploitation of the underground water supply has exploded in the last few years. During the forties and fifties the development followed a gradual and rational pattern as independent farmers recognized the feasibility of using irrigation to stabilize their operations.

The first dramatic change occurred when the Great Western Sugar Co., looking for new production areas, introduced sugar beet production in the area.

About the same time self-propelled sprinkler systems capable of applying water to light and rolling soils, not adapted to leveling and flood irrigation, came on the market.

Widespread interest in potential quick profits flared. The number of irrigation wells in the eastern Colorado groundwater basin grew from about 100 in 1950, to over 400 in 1960. In the next 5 years the total had jumped to 1,200. The present number of wells is estimated at more than 1,900, and the development is still going on.

The withdrawal rate per well for high water demand cash crops averages about 250 acre-feet annually. Thus the 1,900 wells in use are already withdrawing more water from the reservoir than the annual recharge rate.

The 1965 Colorado Legislature passed regulatory legislation much too late, and the adequacy of the legislation is questionable. It has, however, served to retard unlimited exploitation.

You were asking me a little earlier, Senator, about legislation of this type. As you know, most western legislation is based on the appropriation doctrine. This 1965 law does return to the appropriation principle primarily, but it does take into consideration reasonable use. The problem, of course, is to determine reasonable use, and gives authority to a State ground water commission, which, in turn, is supported by a local management district.

Senator NELSON. Is this a 1965 law?

Mr. LEHMAN. Yes.

Senator NELSON. What authority was it necessary for the State to get from the Federal Government for the purposes of managing water levels in the aquifers or water tables?

Mr. LEHMAN. As far as I know, none. I think this was basically a State law.

Senator NELSON. I thought I understood you to say the 1965 congressional act gave authority to State commissions to regulate the water tables.

Mr. LEHMAN. Well, this is the closed basin type of thing that is not directly and immediately connected with the surface flow in the aquifer. Now, I'm not an expert on water legislation. I think the one thing that might interest you is that one of the arguments frequently offered by people for the rapid development of the aquifer is that this ground water is moving very, very slowly through the aquifer, but it does move from west to east, so in a sense it is certainly interstate water, I assume.

Corporate enterprise has been a significant element in the exploitation. The character of the corporations varies widely, and the sources