WATER SUPPLY to 1990

Study: Sea water has now moved 3 miles inland

By DAN YOUNG

Sea-water intrusion in the coastal portion of the Pajaro Basin extends up to three miles inland, and the problem will worsen dramatically if immediate steps are not taken.

That's the main thrust of a recently completed Pajaro Basin ground-water management study prepared by a consulting firm for the Association of Monterey Bay Area Governments (AMBAG).

The report, which took three years to complete, has been approved by AMBAG's technical advisory committee, and will be the subject of a public hearing Wednesday evening in City Hall, beginning at 7 p.m.

The study concludes that if all well pumping in the intruded area (which takes in about 3,300 acres in Santa Cruz and Monterey counties) were immediately discontinued, the minimum amount of replacement water needed to solve the intrusion problem would be 6,500 acre-feet per year.

The report does not call for such a drastic step, however.

"In order to remedy the sea-water intrusion problem in the Pajaro Valley," it says, "one or more of the following actions should be taken:

—"Curtail the level of pumping from all wells in the coastal areas affected by sea water.

—"Provide a new source of supply to water users in the intruded coastal areas.

—"Augment ground-water supplies by recharge-spreading operations."

The report emphasizes that a ground-water management agency be established (voters will decide whether to create such an agency in the upcoming November election), and that a water-supply project be implemented as soon as possible.

Several such water-supply options are outlined in the report, which also estimates the cost of each under several different "assessment-district configurations."

Among the alternatives studied:

—Drilling deeper wells.

—Importing water from either the San Felipe or Arroyo Seco projects.

—Building reservoir sites in the basin (Pescadero Creek Valley, College Lake, Hansen Slough or Bolsa de San Cayetano).

States the report:

"The following water-supply and distribution alternatives are recommended in a descending order based on their ranking according to cost, technical feasibility, environmental impact and institutional reuqirements:

"First, deep aquifer wells would provide the cheapest and most desirable ... source of water supply in the Pajaro Valley. However, there can be no assurance of adequate water quality or yield until this option is explored further. The Arroyo Seco project is second, followed by the San Felipe project using the Pajaro River for water transport, and Pescadero Creek is ranked fourth due to potential concern regarding seismic safety and flooding hazards."

The cost of the projects, the report says, would be $248 per acre foot of water for the wells, $240 for the Arroyo Seco water, $358 for the San Felipe water (using the Pajaro River for transport) and $428 for Pescadero Dam.

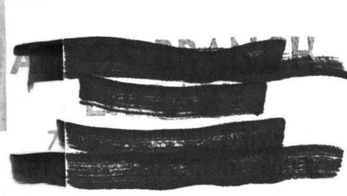
The water could be paid for by assessing just those landowners in the affected areas, all landowners in the basin, or all landowners but with a surcharge to those who used supplemental water, the report suggested.

The study also touched on the potential loss of natural recharge water from the development of primary recharge areas, and not too suprisingly, calls for the protection of such areas.

"The sand hills surrounding the main Pajaro Valley floor have unusually low rates of runoff in their undeveloped state, with correspondingly high recharge of the developed aquifer systems," the report said. "Conversion of these small watersheds to residential (and some types of agricultural) use has been observed to greatly increase runoff rates as much as 185 times, compared to similar undeveloped sandy basins. Data gathered in this study strongly suggests that urban development can have significantly adverse affects on recharge rates."

The report strongly urges that the problem of salt-water intrusion in the basin not go unchecked.

"Inaction would cost from $255,007 to $725,785 per year. Depending on future pumping levels and development in natural recharge areas, economic, environmental and social consequences could be severe. The combined effects of increased pumpage and loss of natural recharge could be as much as 10,000 acre-feet (of water) per year by the year 2000."



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