STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Alleged Waste, Unreasonable Use, Unreasonable Method of Use, or Unreasonable Method of Diversion of Water by MISSION VIEJO COMPANY	Decision 1469

DECISION MODIFYING PREVIOUS DECISION 1463

BY BOARD MEMBERS ADAMS AND MAUGHAN

State Water Resources Control Board Decision 1463, dated March 2, 1977, concluded that the proposed filling of Lake Mission Viejo under the current drought circumstances constituted both a waste and an unreasonable use of water in violation of Section 2, Article X of the California Constitution. Decision 1463 ordered the Mission Viejo Company (Company) to cease filling Lake Mission Viejo forthwith. Condition 2 of the order ordered the Company not to resume filling the lake until the Board made either of two determinations. One of these determinations is that circumstances exist which would operate to eliminate the adverse impact or potential adverse impact of filling the lake. In accordance with Condition 2 the Company requested the Board to hold a further hearing on the Company's proposal to utilize degraded groundwater to fill Lake Mission Viejo during the present drought. The Company alleged that the groundwater was of marginal quality for irrigation of crops and of inferior quality for domestic use. On March 17, 1977, the Board authorized a further hearing on this matter and on May 26, 1977, the Board held such a hearing to consider the Company's proposal. The Mission Viejo Company and other interested parties having appeared and presented evidence, the evidence received at the hearing and thereafter having been duly considered, the Board finds as follows:

Substance of the Proposal

1. The Company constructed an artificial lake called Lake Mission Viejo as part of a real estate development in Orange County. As of the date of Decision 1463, Lake Mission Viejo contained about 1,500 acre-feet of water -- approximately 40 percent of its capacity.

2. Lake Mission Viejo was designed to provide aesthetic enjoyment and recreation, such as swimming, boating, fishing, and other water contact sports. The lake may also serve as an emergency water source for the domestic use of about 115,000 persons in southeastern Orange County.

3. The Company proposes to extract approximately 3,000 acre-feet of high salinity groundwater from the Lower San Juan Creek Groundwater Basin and transport it approximately 11 miles inland to complete filling Lake Mission Viejo.

4. The Lower San Juan Creek Groundwater Basin (hereinafter referred to as the "lower basin") consists of that portion of the San Juan Creek alluvial groundwater basin which generally lies downstream of its intersection with the Arroyo-Trabuco Creek alluvium. The lower basin receives surface and subsurface flows from San Juan Creek and Arroyo-Trabuco Creek. Although portions of the Arroyo-Trabuco Creek and San Juan Creek alluviums contain water with a low total dissolved solids (TDS) content, other waters with high TDS content within these watersheds have caused the water in the lower basin to be of marginal quality for some uses. Typical groundwater quality in the lower basin varies from 1,000/mg/l to 2,000/mg/l TDS, with higher values occurring nearer the coast.

5. The total calculated storage capacity of the entire San Juan Creek Groundwater Basin is about 90,000 acre-feet. About 10,500 acre-feet of surface water and 450 acre-feet of subsurface water flow to the ocean each year. A single year of average rainfall is sufficient to replenish the groundwater to normal levels in the lower alluvial basin.

6. During the dry portion of a normal year, groundwater levels decline anywhere from 5 to 30 feet below the levels existing during the wet portion of the year but have declined as much as 50 feet during long dry periods. Presently the lower basin is full and groundwater is rising into the stream channel of Lower San Juan Creek.

7. The lower basin was once pumped extensively for agricultural purposes as well as for some domestic use. However, because the water quality was initially poor and because it gradually degraded with time, local water agencies participated in a system to convey surface water supplies from facilities of the Metropolitan Water District of Southern California (MWD) into the area. When this system became operational in 1965, the existing wells were gradually abandoned. There are about forty existing abandoned wells and only two active wells in the lower basin. The two active wells provide water for irrigation on approximately 110 acres. The Company estimates that slightly over 300 acre-feet of water is presently extracted from these two wells for use on overlying land.

8. Upstream in the Arroyo-Trabuco Creek alluvium there are ten active wells but all except one are more than one mile upstream of the lower basin. Upstream in the San Juan Creek alluvium there are six active wells located within two miles of the lower basin.

9. Local water officials have long contemplated the rehabilitation of the lower basin. In November 1971 they executed a joint powers agreement establishing the "San Juan Basin Authority" (Authority) which was to provide coordinated regional management of the San Juan Creek Basin and the waters tributary thereto. The Company anticipates that the Authority and Santa Margarita Water District, a member agency of the Authority, will be principally responsible for implementation and administration of the Company's proposal.

10. In 1968 the local water officials contracted with the Department of Water Resources to evaluate the groundwater potentialities of the entire

San Juan Creek Basin area. The investigation culminated in a report (Bulletin 104-7) published in 1972 entitled "Planned Utilization of Water Resources in the San Juan Creek Basin Area". DWR Bulletin 104-7 formulated a total of 200 plans for restoring the basin and sixteen plans were chosen by an advisory committee for comprehensive evaluation. The following operational assumptions, among others, were developed for evaluation of the several plans:

> *"The lower portion of the San Juan Basin will be managed so that the volume of groundwater now contained in that portion will be decreased, but the quality will be improved. To accomplish this, 8,000 acre-feet per year of groundwater will be pumped and disposed of to the ocean for five years (1975-1979) and 5,500 acre-feet per year of streamflow (TDS 400 mg/l) will percolate to the groundwater basin under mean hydrologic conditions."*

11. The Santa Margarita Water District (District) is commencing a program to prevent all nonstorm surface and subsurface flows from Oso Creek, a tributary of Trabuco Creek, which contributes a substantial salt load to the basin, from passing into the downstream area. This program is in accordance with a waste discharge requirement prescribed by the Regional Water Quality Control Board, San Diego Region, for a reclamation plant in the watershed of Oso Creek.

Finding as to Waste, Unreasonable Use, Unreasonable Method of Use, and Unreasonable Method of Diversion of Water

12. The State of California is experiencing its second year of drought, which has increased in severity since Decision 1463 was adopted by the Board on March 2, 1977. Prudent water management requires taking all reasonable steps now to minimize adverse impacts should the present drought extend into next year and beyond.

13. The Company proposes to withdraw groundwater from the lower basin at about 4,800 gpm (10.7 cfs) and predicts that this will result in a fairly

deep cone of depression -- probably well below sea level. Therefore, the proposed pumping probably will adversely affect the water levels in the two existing active wells within the lower basin. The Company proposes to mitigate this adverse consequence by providing the owners of the two wells on a priority basis water pumped from the lower basin by the Company.

14. The proposed pumping will probably have minimal impacts on groundwater levels in upstream areas. However, the Company proposes to monitor the upstream wells. In the event a decline in upstream groundwater levels occurs, which decline is caused by the Company's extraction, the Company proposes to compensate the affected upstream pumpers for any additional costs.

15. The use of groundwater from the lower basin does not impose a burden on the State Water Project or the Colorado River. Although good quality local groundwater can be and is being substituted for water originating from the State Water Project, groundwater from the lower basin is of marginal quality for irrigation of crops and inferior quality for domestic use. All existing uses of such water will be satisfied with the water available. If the 3,000 acre-feet of groundwater were not used to fill Lake Mission Viejo, it would be wasted to the sea.

16. The proposed extraction may cause sea water to intrude into the basin. However, since sea water intrusion occurs at a very slow rate, the extent of intrusion should not be great during the pumping period of four to six months.

17. The proposed extraction program will result in conservation of additional native flood flows, which generally are of good quality, by providing space in the aquifer for the flood water. The proposed extraction program will also assist in assessing the feasibility of a larger extraction program in conformance with the proposed pumping program advocated by the Department of Water Resources in Bulletin 104-7.

18. While the extraction of 3,000 acre-feet of water will probably have little impact in and of itself on the overall quality of water in the lower basin, the proposed extraction program appears to be a step towards further restoration of the lower basin.

Conclusion

The Board concludes that the proposed filling of Lake Mission Viejo as the proposal has been represented in the records of this proceeding, including mitigation of adverse impacts, does not constitute waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water pursuant to Section 2, Article X of the California Constitution.

ORDER

IT IS HEREBY ORDERED that:

State Water Resources Control Board Decision 1463 and the Order contained therein is modified in accordance with the Findings and Conclusions contained herein.

Dated: JUN 16 1977

W. Don Maughan, Vice Chairman

W. W. Adams, Member

WE CONCUR:

John E. Bryson, Chairman

Jean Auer, Member