

December 28, 1999

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To Whom It May Concern
Metropolitan Water District of Southern California
P. O. Box 54153
Los Angeles, CA 90054-0153

Dear Sir/Madam:

I am pleased to submit my comments on the Draft Environmental Impact Report for the Cadiz Groundwater Storage and Dry Year Supply Program, Report No. 1157.

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1. Incorrect No Project alternative

In November 1993 the San Bernardino board of Supervisors unanimously approved a General Plan Amendment establishing agricultural land use designation for 9,600 acres at Cadiz for which 1,600 acres have been developed and are leased to Sun World. This Board action represented the largest land use approval on behalf of a single property holder in the County's known history. This action also approved permits to build infrastructure and facilities to house as many as 1,150 seasonal workers and 170 permanent residents (employees and their families) and allowed for the withdrawal of more than 1 million acre-feet of groundwater from the company's underground water basin. The management and staff of Cadiz have a significant amount of expertise in that business. It would seem appropriate to have an expanded agricultural operation as the No Project alternative. Mr. Blackpool, the president and CEO of Cadiz, is on record opposing the fallowing of agricultural land as a means to develop new urban water supplies. A no-project alternative involving an expansion of agricultural operations in the Cadiz/Fenner valleys would reduce the potential yield of the project.

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2. There is a potentially large impact to the flora and fauna in the project area due to the massive changes in groundwater management.

The historic groundwater/surface water dynamic in the project area has achieved a delicate balance. According to the Draft EIR/EIS, approximately 30,000 AF/yr of groundwater recharges the aquifer causing groundwater elevations to become very near the surface water elevations at the dry lake beds. (It is interesting that the Principles of Agreement between the Metropolitan Water District (MWD) and Cadiz contemplate indigenous water withdrawal rates greater than the natural recharge rate.) There is very little discussion of this balance and

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how that balance might be upset by massive injections of new and saltier water from the Colorado River and/or long-term net depletions in groundwater quantities may also create such massive surface condition changes as to be a significant environmental impact.

The planned extraction and recharge facilities are strategically located in the pathway between groundwater recharge and the dry lake basins which are accompanied by and surrounded by saline groundwater conditions. If approximately 30,000 AF of Colorado River water were recharged each year, the extraction wells could recover that amount and there would be no net change in the groundwater surface as it neared the dry lakes. To the extent that groundwater recharge exceeded the extraction rate, which appears in each of the plans, the ground water level will rise in the recharge area and also between the recharge area and the dry lakes. The anticipated recharge rate exceeds the natural recharge rate by a factor of 5.0. This is well beyond normal variation in the natural recharge rate and will definitely raise the water table. It is likely that as the groundwater elevation approaches the ground surface elevation in areas where that had not occurred historically, a significant change in the surface plant life will occur which, in turn, will affect terrestrial species. It is also likely that as the groundwater elevation approaches the ground surface elevation that areas exposed to high groundwater elevations will also be suffering an increase in salinity which will significantly alter the species of plants able to survive the area.

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Most of the plan's operating scenarios call for a net drawdown of the aquifer which, out of necessity, will lower the groundwater elevation as it approaches the dry lake beds and have just the opposite effect of what has been described above. The major swings (far more than what would occur naturally) in groundwater conditions are a bigger threat to the surface environment than simply raising or lowering the groundwater elevation. It appears that few or none of these issues have been raised in the Draft EIR/EIS and, because of that, there is a violation of at least the CEQA process.

3. Potential for an "Owens Lake effect" due to overpumping the groundwater basin.

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When a major part of the Owens River was diverted to Southern California years ago, one result was the dramatic reduction of flows to Owens Lake which resulted in the lack of the rewatering of the dry lake and eventually a significant airborne pollution problem. This has not been taken into consideration in the draft document and is a CEQA defect.

4. The injection of Colorado River water into the project aquifer will result in a significant degradation of water quality within that aquifer.

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The state laws that prohibit groundwater degradation are a little fuzzy and for good reason. The sophisticated management of a groundwater basin will often result in some level of water quality degradation. However, if that management scheme results in a substantially improved overall water management picture, intuitively it seems to be correct to tolerate that quantity of diminished groundwater water quality. The aquifers beneath Orange County are

such an example. Historically, the groundwater water prior to heavy pumping was of a very high quality because it was annually recharged with local low salinity runoff. Management of the aquifers beneath Orange County is frequently used as an example of how to properly maximize the use of groundwater assets even though there has been some loss of water quality suffered by those who are served by the groundwater. The tradeoff, of course, has been a dramatic increase in the reliability of water deliveries. The massive groundwater storage project contemplated in this case will result in a significant deterioration of water quality, at least downslope from the recharge areas. Depending upon the rate of indigenous water withdrawals, the water quality in the aquifer between the recharge area and the dry lakes could soon approach that of the Colorado River Aqueduct. Because Colorado River water contains so much salt, it functionally eliminates its use when waste water recycling is a consideration. In essence, if the project area aquifers reach a salinity level approaching that of the Colorado River Aqueduct, opportunities to recycle water within that groundwater basin become almost out of the question. That fact alone should define the potential level of significance for groundwater degradation.

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5. Reduced property values for other basin landowners.

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The Cadiz project presumes to use all of the natural recharge to the basin for their own use even though their surface rights overlie a small percentage of the groundwater basin. Although groundwater law in California is very skimpy, it seems only fair that the other property owners should have reasonable access to the groundwater beneath their property and that use should not be impaired by a landowner who seeks to "over appropriate" the groundwater resource. Much of the land is in the control of the Bureau of Land Management, which is the federal lead agency for this project. The Bureau should be very sensitive to the diminished value of land held by the public sector and, for that reason alone, should condition any operation so that the groundwater resources of the basin can be shared among the landowners in proportion to their surface ownership.

6. Lack of biological opinions.

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In order to provide full disclosure, the environmental document should contain, at a bare minimum, biological assessments for the appropriate sensitive species. Those assessments should include the potential for the changes in flora and fauna associated with massive changes in groundwater conditions, especially where they occur near surface. They should also take into consideration the long-range impacts of excessively dry lakes described earlier as the "Owens Lake effect." Certainly a record of decision for this project cannot precede the issuance of non-jeopardy biological opinions on all of the appropriate species.

7. Inadequate analysis of possible alternatives.

The project purpose is to protect and/or enhance water reliability for MWD service area. An exhaustive list of off Colorado River Aqueduct storage opportunities was investigated and

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dismissed for various reasons including water quality, environmental and economic considerations. Alternatives other than off Colorado River Aqueduct groundwater storage projects should have been considered. Other groundwater opportunities exist in the San Joaquin Valley which would also serve to increase the ability of the State Water Project to improve the salinity mix for MWD customers. In earlier documents, MWD has identified some of the options which may be available as viable alternatives to the Cadiz program. The Department of Water Resources and CALFED have relatively current information regarding possible alternatives as well.

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8. Avoid disruption of any surface flows.

The draft document suggests that there will be less than significant inference with surface flows. This is very important because desert life relies heavily on even very occasional surface flows to maintain its viability. If there is any attempt to capture surface flows for immediate use or direct recharge to groundwater basin, substantial environmental impacts will occur.

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9. How does Cadiz really intend to operate the project?

Investor information pieces circulated by Everen Securities dated December 2, 1998 and September 15, 1999, had to have been a result of information passed from Cadiz to Everen. These two pieces lead one to believe that the project might be operated quite differently than what is indicated in the draft environmental document. The authors of the document and the lead agencies should view the above-referenced documents and consider what may be the most probable operating scenario for the project.

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10. Possible conflicts of interest.

The hydro-geological firm that has done a significant amount of work for this project has received at least a part of its fee in the form of common stock in Cadiz. Does this represent conflict?

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Please don't do a groundwater raid on the Cadiz/Fenner Basin.

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