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Date: 02/08/2000  
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NPCA

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P. 1

G11

NATIONAL PARKS CONSERVATION ASSOCIATION  
THE WILDERNESS SOCIETY

8 March 2000

Jack Safely  
Metropolitan Water District of Southern California  
Post Office Box 54153  
Los Angeles, CA 90054-0153

James Williams  
Bureau of Land Management  
California Desert District  
6221 Box Springs Boulevard  
Riverside, CA 92507-0714

Post #	Date	# of pages
Fax Note #7673	3/8	7
To	Jack Safely	
Fax #	213-217-0119	
From	Eileen W. Seward	
Phone #	510-839-9922	

**RE: CADIZ GROUNDWATER STORAGE AND DRY-WATER SUPPLY PROGRAM  
DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT  
STATEMENT (DEIR/DEIS)**

Dear Mr. Safely:

Thank you for the opportunity to comment on the abovementioned document. We also appreciate your communication of the March 8, 2000 deadline in our telephone conversation of February 22, 2000. The National Parks Conservation Association (NPCA) is America's only non-profit, private citizens' organization dedicated solely to protecting, preserving and enhancing the country's National Park System. Founded in 1919, NPCA currently has over 400,000 members, with 65,000 members in California. The Wilderness Society (TWS) is a national conservation organization with 200,000 members nationwide, and 30,000 members in California.

G11-1

We have very serious concerns about this project and the enormous potential it has to seriously degrade federally protected National Park Service (NPS) and Bureau of Land Management (BLM) lands. Furthermore, we believe that the information and analysis in the DEIR/EIS is fundamentally flawed, invalidating the document and its ability to comply with the National Environmental Policy Act, 42 USC 4321 et seq. (NEPA)

G11-2

This project has the potential to degrade the natural resources of Mojave National Preserve which was placed under the protection of the NPS in 1994 to provide permanent protection for the area's unique and nationally significant natural and cultural resources. The project also could seriously degrade natural resources on BLM lands including the Trilobite Wilderness, Clipper Mountains Wilderness, Cadiz Dunes Wilderness and Old Woman Mountains Wilderness. Due to the fundamental flaws of the DEIR/DEIS, the Metropolitan Water District (MWD) and BLM need to revise and recirculate a new document. We support the no action alternative, combined

G11-3

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(510)839-9926

p. 2

with active efforts on the part of MWD to implement water conservation efforts and reclamation measures to reduce the need for this project.

G11-3

**General comments**

Independent reviewers have heavily criticized the data and analysis used as the foundation for this document. The United States Geological Survey and the County of San Bernadino (the Durbin/Foster report) have separately generated reviews of the EIR/EIS that indicate that the document is based on gross overestimates of groundwater recharge and manipulates data to substantiate erroneous conclusions. We incorporate these reports by reference. NPS hydrologists and water rights specialists have drawn similar conclusions.

The document asserts that the project involves the sustainable use of groundwater. According to these independent reviews, that conclusion is based on an estimated rate of the groundwater recharge that is 5 to 25 times the actual recharge rate. The groundwater flow model used by the document planners was not technically sound and did not accurately reflect discharge at Bristol and Cadiz Dry Lakes, soil water storage and consumption by desert plants. Additionally, the document overestimates the size of the groundwater basins, does not acknowledge the fact that the bulk of the groundwater in the basins was recharged thousands of years ago under much wetter climatic conditions, and fails to factor in evaporation in percolation ponds.

G11-4

Using corrected figures, it is clear that the proposed project actually involves the removal of millions of acre-feet of indigenous groundwater dating back to the Pleistocene. In fact, Cadiz is already pumping out 5,000 to 6,000 acre-feet of groundwater a year for agricultural use. This is potentially double what USGS estimates to be the actual recharge to the basins. While there may be theoretical merit in an underground water storage project, this project is, in fact, a groundwater removal project. Because of the immeasurable and irreversible toll this project may take on the aforementioned federally protected lands, we cannot support the project. Furthermore, without a sound groundwater study, the document is not equipped to competently evaluate the potential impacts to the surrounding lands that overlie the Fenner, Bristol and Cadiz aquifers, and therefore does not comply with the requirements of the National Environmental Policy Act (NEPA). See, eg., 40 CFR 1502.22.

**Impacts to BLM lands**

The DEIR/DEIS fails to analyze the potential impacts of the project on federal reserved water rights held by BLM in surrounding Wilderness areas, including the Trilobite, Clipper Mountains, Cadiz Dunes and Old Woman Mountains Wildernesses. When the California Desert Protection Act (P.L. 103-433) (CDPA) was enacted in 1994, Congress reserved, for each Wilderness area designated by the Act, "a quantity of water sufficient to fulfill the purposes of this Act." 16 USC 410aaa-76. In order for sufficient water to be reserved to meet the purposes for which these Wilderness areas were established, the BLM must undertake a thorough and complete analysis of all springs, seeps and other water-containing bodies within the area of potential impact. This analysis must be completed, and sufficient water must be reserved for the Wilderness areas by the BLM, prior to the final Cadiz project being approved. Similarly, all Wilderness Study Areas designated by Congress in 1994 should undergo a similar analysis.

G11-5

The DEIR/DEIS fails to analyze the potential impacts of groundwater storage, retrieval and transfer on the Cadiz Dunes Wilderness. This BLM Wilderness area sits atop the groundwater

G11-6

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Duration: 3 min 12 sec  
Company:  
Subject: (510) 839-9926

p. 3

path between the project and Cadiz Dry Lake. The groundwater table that lies beneath Cadiz Lake is projected to fluctuate depending on the phase of storage, retrieval and transfer of groundwater, implying that the groundwater table beneath the Wilderness area will similarly fluctuate. Such fluctuation could impact dune-associated plants and wildlife which are dependent on groundwater for their sustenance and a moist layer under the surface of the dunes from which they can escape the desert heat. The DEIR/DEIS must be revised and include an assessment of the impacts of possible groundwater table fluctuations on this important Wilderness area. The revised DEIR/DEIS must also examine the aesthetic impacts of situating the pipeline and four-story powerline within the viewshed of this wilderness area, as well as the viewsheds of the Old Woman Mountains and Trilobite Wildernesses.

G11-6

The Trilobite Wilderness is only 3.5 miles away from the project, yet the DEIR/DEIS does not discuss the project's potential impacts on the springs in that area and the second largest herd of bighorn sheep in the Mojave Desert. The Clipper Mountains Wilderness also harbors springs and habitat for the desert bighorn. The revised DEIR/DEIS must analyze how the project may harm the spring-dependent flora and fauna in these Wildernesses.

G11-7

In the section on BLM responsibilities, the DEIR/DEIS needs to acknowledge the fact that BLM has the authority to refuse to permit the associated right-of-way. The established California Desert Conservation Area plan does not authorize a utility corridor, and the project is therefore not in conformity with the CDCA. Some of the lands that would be used for the utility corridor are Class L (Limited), a category indicating these lands are to be "oriented towards giving priority protection to sensitive natural, scenic, ecological, and cultural resources while placing limitations on other uses that may conflict with or degrade these values." {BOB - CITE?} The lands under consideration provide habitat for both desert bighorn sheep and the desert tortoise. Placing the pipelines, four-story powerline and roads for this project on class L lands is problematic and will require an amendment of the CDCA Desert Plan. This proposal is especially questionable as there appear to be viable alternatives involving the use of non-class L lands, alternatives which have not been seriously considered in this DEIR/DEIS. See the following section on alternatives for elaboration on this point.

G11-8

**Impacts to Mojave National Preserve**

The DEIR/DEIS does acknowledge that this project is not consistent with the land use of a National Park unit and, on that basis, rejects alternatives that would site the project next to or within Joshua Tree National Park. We support that analysis but find that the DEIR/DEIS is inconsistent in not applying that logic to Mojave National Preserve, which is only 15 miles from the project site and is partly situated above the Fenner aquifer, and is likely to be affected by the groundwater drawdown proposed in this project.

G11-9

G11-10

The document also acknowledges that Mojave National Preserve is 15 miles north of and up-gradient from the project spreading basins and well-field. The analysis, however, must begin, not end there. The RDEIR/RDEIS should include an analysis of how the project may impact the Preserve's resources, including but not limited to:

- Springs and seeps
- Sensitive flora and fauna
- Wilderness values

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Mar 08 00 03:06p NPCA

(510) 839-9926

P. 4

- Wildlife habitat and migration
- Air quality
- Water quality and supply

G11-10

The DEIR/DEIS currently asserts that the project will not impact the groundwater fifteen miles away under Mojave National Preserve, yet elsewhere indicates that groundwater drawdown could occur as much as 25 miles away from the proposed pumping centers. The DEIR/DEIS and other studies indicate that drawdown could occur beneath the Preserve. This possibility and the resulting impacts need to be addressed in the revised DEIR/DEIS.

**Inaccurate, incomplete data and analysis**

Water quality: Colorado river water, which the DEIR/DEIS states is two orders of magnitude more polluted than what is safe for human consumption, is going to be stored with the extant pristine groundwater. The degradation that will result from injecting polluted water, including high levels of salt and perchlorate, into the aquifers needs to be analyzed as an impact. The RDEIR/RDEIS should consider filtration or some other means of purification prior to depositing it in the aquifer.

G11-11

Subsidence: The document refers to subsidence that would result from this project, but does not adequately address the issue. The document predicts an up to 22 inch subsidence in the valley floor, yet also states that mitigation will reduce potential subsidence effects below a significant level. The referenced mitigation only calls for monitoring and remedial actions if subsidence exceeds one foot per mile. Yet this is after the fact and well after mitigation measures should have been triggered. Furthermore, the document doesn't suggest stopping water extraction as a mitigation measure. This issue requires a thorough and complete analysis that includes measures to stop damage before it occurs and includes meaningful actions to prevent subsidence.

G11-12

Water supply: Even using the document's own numbers, MWD and BLM project a 190 foot drop in groundwater levels, but does not discuss the resulting impacts to the region's natural resources. Additionally, it is not clear what the document means by characterizing this project as wet year storage and dry year withdrawal project. If there is a series of dry years, does this then permit intensified groundwater extraction? Furthermore, it is unclear if the "wet year" is defined by conditions in southern California or the availability of water from the Colorado River.

G11-13

G11-14

The revised DEIR/DEIS must include a new groundwater model based on accurate information about the hydrology of the desert basins under consideration. It must include a map of projected drawdown contours, that also identifies all springs, seeps, wells and riparian areas for the region and includes the boundaries of all potentially affected BLM and NPS lands.

G11-15

Air quality: Lowering the water table is also likely to dry out the Danby, Cadiz and Bristol "dry" lakes. This could translate into degradation of air quality, including a release of PM10 particle pollution into the atmosphere. The RDEIR/RDEIS must evaluate this potential impact.

G11-16

**Complete absence of monitoring and mitigation plan**

The DEIR/DEIS states that "potential impacts to water resources include adverse changes to the quality and quantity of surface water and groundwater," including impacts to ground structure

G11-17

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p. 5

stability, water quality and quantity, but concludes that these impacts will be insignificant because of a pending monitoring and mitigation plan. There are several references to a pending mitigation and monitoring plan, yet the plan is not incorporated into the EIR/EIS, making the document fundamentally incomplete. This flaw alone mandates the need for a revised or supplemental DEIR/DEIS.

NEPA requires that such mitigation measures be reviewed in the NEPA process -- not in some future decision shielded from public scrutiny. "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 353 (1989). Appellate Courts have explicitly struck down EISs that rely on unspecified future actions to mitigate or avoid environmental impacts. Oregon Nat. Resources Council v. Marsh, 52 F.3d 1485 (9th Cir. 1995) (Elk Creek Dam III); Oregon Nat. Resources Council v. Marsh, 832 F.2d 1489, 1493 (9th Cir. 1987) (Elk Creek Dam I), reversed on other grounds, 490 U.S. 360 (1989), California v. Block, 690 F.2d 753 (9th Cir. 1982).

611-17

NEPA regulations require that the NEPA document: (1) "include appropriate mitigation measures not already included in the proposed action or alternatives," 40 CFR 1502.14(f); and (2) "include discussions of: ... Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f))." 40 CFR 1502.16(h). The CEQ has also stated that: "All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies..." Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18031 (March 23, 1981).

This section must include meaningful, enforceable regulatory controls that could lead to the modification and even cessation of operations. Monitoring must include mechanisms that will provide immediate feedback about potential impacts to Mojave National Preserve and BLM Wilderness areas. Mitigation should include the establishment of a mandatory basin-wide monitoring system that is subject to independent and public review.

### **Lack of consideration of other viable, less destructive alternatives**

The alternatives in the document offer a narrow rather than reasonable range of alternatives, as required by NEPA, 40 CFR 1502.14, 1505.1(e). Furthermore, "the existence of a viable but unexamined alternative renders an environmental impact statement inadequate." Resources Limited v. Robertson, 35 F.3d 1300, 1307 (9th Cir. 1993) (quoting Idaho Conservation League v. Mumma, 956 F.2d 1508, 1519 (9th Cir. 1992)). The failure of the document to adequately review a full range of alternatives fatally flaws the DEIR/DEIS.

611-18

At a minimum, a full analysis of the reasons for rejecting reasonable alternatives should have been included. "The agency must explicate fully its course of inquiry, its analysis and its reasoning." Dubois v. U.S. Department of Agriculture, 102 F.3d 1273, 1287 (1st Cir. 1996). An agency decision must always have a rational basis that is both stated in the written decision and demonstrated in the administrative record accompanying the decision. Kanawha & Hocking Coal & Coke Co., 112 IBLA 365, 368 (1990). The decision must be made in a "careful and

5

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Mar 08 00 03:07p NPCR

(510)839-9926

P.6

systematic manner." Edward L. Johnson, 93 IBLA 391, 399 (1986). The record must demonstrate a "reasoned analysis of the factors involved, made in due regard for the public interest." Alvin R. Platz, 114 IBLA 8, 15-16 (1990).

G11-18

Additional alternatives must be developed that consider:

- Alternative sites for the project
- Use of the Fenner, Bristol and Cadiz aquifers for storage and retrieval of Colorado River water *only*, based on a retrieval rate that has been independently reviewed and scientifically substantiated, and is subject to correction from ongoing, accurate monitoring.
- Methods, such as water conservation, and development and use of reclaimed water, to reduce the consumption and need for additional water in southern California.

G11-19

G11-20

The DEIR/DEIS fails to identify existing utility corridors which might be able to accommodate the needs for the project. The revised DEIR/RDEIS should include an alternative where Cadiz would utilize existing utility corridors (e.g., Arizona & CA railroad right-of-way) in order to avoid additional project impacts to public lands, and where utility lines would be placed underground, to avoid impacts to the visual quality of the region.

G11-21

The document describes the lowering of the water table in MWD's service area as an environmental impact of the no action alternative, but does not similarly acknowledge the environmental impacts from the lowering of the water table to the Mojave National Preserve and BLM lands. This inconsistency needs to be substantively rectified in the revised DEIR/DEIS.

G11-22

**Water rights**

The document does not clearly outline the authority under which Cadiz, Inc., is entitled to the volume of water described under each alternative in the DEIR/DEIS. The assumed rights need to also be discussed in reference to potentially competing and superior water rights, as mentioned in the earlier citation of the CDPA with reference to designated BLM wilderness areas.

G11-23

A project that could impair any springs, sccps or riparian areas in either the Mojave National Preserve or BLM Wilderness areas is unacceptable. Water resources in Wilderness and in the Preserve are federal water rights, held in trust for the American people. This resource is particularly critical to the desert ecosystem, as the minimal water supply is the very lifeline for the survival of most of the desert's flora and fauna. The project proposal must be changed such that it does not entail the removal of more indigenous groundwater than is annually recharged, nor affect any of the water sources in either the Preserve or BLM Wildernesses.

G11-24

**Cumulative impacts**

The cumulative impacts section is currently incomplete as it only includes other MWD water projects. This section needs to address all the impacts from other projects that are potentially affecting the same resources. This needs to include other agricultural projects, wells and extraction facilities, as well as playa mining operations. Although the Rail Cycle project is currently stalled due to litigation, the impacts of this "reasonably foreseeable future action" need to be part of this section.

G11-25

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(510) 839-9926

p. 7

For example, 5,000 to 6,000 acre-feet are already being pumped out by Cadiz for agricultural use. This needs to be incorporated into the cumulative impacts analysis. The DEIR/DEIS asserts that there have been no significant declines from this use, yet doesn't explain the evidence for this conclusion nor does it define "significant." A significant decline should be defined as a decline resulting from withdrawal in excess of natural recharge, the rate of which needs to be ascertained using hard data that has been independently reviewed.

611-25

**Conclusion**

The DEIR/DEIS is both inaccurate and incomplete, and thus thwarts the very intent of the legal requirements of NEPA. The incomplete analysis of the environmental impacts of this project combined with the absence of a mitigation plan violate NEPA's fundamental commitment to "prevent or eliminate damage to the environment by focusing government and public attention of the environmental effects of proposed agency action." Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989). NEPA requires the federal agency to "consider every significant aspect of the environmental impact of a proposed action" Vermont Yankee Power Corp. v. Natural Resources Defense Council, 435 U.S. 519, 553 (1978), and to ensure "that the agency will inform the public that it has indeed considered environmental concerns in its decision making process." Baltimore Gas and Electric Company v. NRDC, 462 U.S. 87, 97 (1983).

611-26

We look forward to reviewing a revised EIR/EIS that addresses the aforementioned concerns and issues and fully complies with NEPA. As mentioned, it should be recirculated for public review and incorporate measures for water conservation efforts and reclamation measures to reduce the need for this project. Thank you and please contact us with any questions.

Sincerely,

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