

The mission of Desert Survivors is to experience, share and protect the desert, a beautiful, fragile and threatened environment deserving of respect and requiring constant vigilance.



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**RE: Cadiz Groundwater Storage and Dry-Year Supply
DRAFT EIR/EIS Comments**

Dear Sirs:

Thank you for the opportunity to comment on the Cadiz Groundwater Storage and Dry-Year Supply Project Draft Environmental Impact Statement.

Desert Survivors is an environmentally-oriented organization of people interested in the conservation of desert and arid areas in California and Nevada. Our focus is to educate people about desert and arid area protection issues by leading trips, publishing informational materials and working with public land managers and advocates to protect and conserve our rapidly vanishing natural areas. We long been involved in California desert protection issues working for passage of the California Desert Protection Act and commenting on numerous management actions in the various BLM resource areas. We have led hikes across the Sheephole and Cadiz Valleys and into the Old Woman Mountains and Trilobite Wilderness Areas. The BLM's California Desert Conservation Area lands are very important to our group. We have walked the ground, we have beheld the views, we have been awed by the vast open spaces of this complex of desert valleys and surrounding mountains. We are an interested party and a staunch defender of its natural values. We look forward to the BLM stepping up to its responsibility as protective steward of these lands. This area is worth saving in its undeveloped state for the benefit of future generations.

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Desert Survivors members in cooperation with the Desert Trail Association have spent a great deal of time exploring a hiking route across the desert lands of California, Nevada and Oregon from the Mexican border to the Washington state border. The Desert Trail route comes north from Joshua Tree National Park, up Sheephole Valley, over the Calumet Mountains, across Cadiz Valley and on north to the Trilobite Wilderness, the Granite Mountains and the Mojave National Preserve. The route across this vast valley was chosen because of the few human impacts on the land. Desert Survivors strongly urges the BLM to protect the primitive character of this area.

As former Communications Director for Desert Survivors and as a current Board member and desert backpacking leader, I have written about this area in our quarterly journal, *The Survivor*, as well as been in contact with numerous people and groups who have an interest in preserving this undisturbed land both for environmental and primitive recreational purposes. I have made two trips to the area in the past two months to refresh my past impressions of the Cadiz project area and so I could contrast this recent personal experience with the descriptions in the Draft EIR. I have come away with strengthened attachments to this land and an intensified interest in its preservation. As Director-at-Large and Chairman of the Cadiz Groundwater Task Force of Desert Survivors I am glad to be able to represent our group in presenting these comments to you.

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Significant New Information of Sustainable Groundwater Yield Now Available

The Cadiz Groundwater Storage and Dry Year Supply Project as described in the EIR is really a marriage of two separate water proposals. The Cadiz Water Storage and Retrieval Project and the Cadiz Native Groundwater "Transfer" Project. The EIR states that up to 2 million acre-feet of native groundwater could be pumped from the basin. This is apparently based upon an assumption of an annual sustainable yield of 40,000 acre-feet for the project lifetime of 50 years. Elsewhere in the EIR the figure of 30,000 acre-feet per year is declared to be the sustainable yield. Two new technical reports from reputable sources have become available which call into question the groundwater figures presented in the EIR. The US Geological Survey review and a special study done for San Bernardino County both declare the true yield to be much lower (in fact lower than the present day pumping by the Cadiz agricultural operation). They also declare that the methods used by the project proponents are incorrect. This "significant new information" would seem to completely remove any potential for native groundwater "transfer" by the project.

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New EIR or Supplemental EIR Required

Under present NEPA practice when "significant new information" arises the responsible agency must issue a new revised EIR or issue a supplemental EIR taking into consideration the affect of the new information. In the case of the groundwater recharge and yield figures this new information must be integrated into a revised project EIR for further public review and comment.

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Desert Survivors Supports the NO ACTION Alternative. It is possible that a well thought-out and fully studied proposal for a sustainable groundwater storage and retrieval project could be supported by Desert Survivors. This project as presented in the EIR is NOT such a project. The Draft EIR/EIS does not present sufficient information to understand the short and long term environmental impacts for any of the action alternatives presented. The EIR/EIS DOES present

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sufficient information to show that a storage and retrieval proposal in this area is very complex. It has significant environmental impacts, many of which are not revealed by this proposal. Without this information the NEPA process is not full-filled. No utility corridor can be granted. No right of way over public lands can be granted. As it stands we have no choice but to ask that the No Action Alternative be selected. We feel you have no other alternative given your legal mandate to manage these lands in a sustainable fashion for the future. The new groundwater technical reports professionally present the concerns with the issue of basin recharge and groundwater yield in the retrieval area. However there are many other aspects of this project which we find alarming. Below are a series of significant concerns Desert Survivors has with the Draft EIR/EIS. Some are suggestions for additional required information in a new DEIR if you choose to proceed with this project.

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MAJOR POINTS OF CONCERN

Failure of the BLM to Involve Itself as an Land Owner Affected by Groundwater Use

Perhaps our concerns here are unjustified. Perhaps even now the BLM is preparing a strong defense of the interests of the land owner with the most to lose by not participating in the division of the Fenner-Bristol-Cadiz groundwater "spoils." California water law allows the adjoining owners of the surface lands above a groundwater basin to determine the acceptable impacts on each other of groundwater usage by one or all of them. In California urban coastal groundwater basins an adjudicated agreement under the review of a judge is often necessary to ensure at least a somewhat orderly distribution of the available groundwater. In the last few years Cadiz has bought out most adjoining private land owners, including Catellus, and has initiated land swaps with the BLM itself to amass a contiguous number of sections of land ostensibly for the purposes of expanding the agricultural operation. Now in a five mile radius of the project area the only landowners are Cadiz and the BLM.

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Why has not the BLM worked out appropriate agreements with the proponents of this project which protect the public's long-term interest in these desert lands? Can it be that the BLM does not feel that there is no significant impact in a drawdown of almost two hundred feet and a land subsidence of almost two feet? Can it be that the BLM feels that the short-term overdrafts will all gradually work out over a hundred years or more and the lands need no defense or further monitoring than this EIR indicates?

No, certainly not. The BLM, I guess, is considering itself as just another entity who must react and comment on this EIR just as any other member of the public. No doubt they will submit documentation to the comment process expressing exactly these concerns. No doubt they have their solicitors gearing up for a letter of concern and an impending law-suit so that the proper California-type adjudication of this basin's resources will occur.

What is the BLM's Role?

The BLM's, role as expressed in the EIR, is simply that of a party sitting on the side who happens to have the ability to grant a right-of-way. There is no role expressed for the BLM as landowner of most of the land affected by the project. This is not right. Lets be out front. The BLM should

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be sitting at the table as an impacted party representing we, the public's, lands. I guess the traditional way for the BLM to express itself would be to deny the right-of-way for reasons having to do with the right-of-way's impact rather than what might be the real reason, a concern about groundwater overdraft. If there were no right-of-way needed, would the BLM intervene as a land-owner with groundwater rights? Did they in the Hayfield project? It is difficult for us, as environmental advocates, to address ourselves to the Metropolitan Water District on these issues. We urge the BLM to take a pro-active role as a land-owner in defense of the long-term groundwater rights of public lands in ALL projects of this nature.

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Failure to Provide a Regional Basin-wide Groundwater Monitoring Plan.

The Metropolitan Water District has expressed a commitment to conform to Best Management Practices and to not withdraw native groundwater above a determined "sustainable" level. Assuming that this promise is serious, there should be no objection to the establishment of a mandatory basin-wide monitoring system of reporting and monitoring which can be reviewed by a board with public representation. This is the type of system which is becoming necessary for the more over-drawn basins near the urban California coast. In order to prevent this desert area from receiving the impacts of un-regulated groundwater overdrafts, a strict monitoring, reporting, and oversight regime is required. The Met staff, when asked about this, said that some level of plan was being developed. Well, if so, it must be described in sufficient detail in the EIR to allow the public to feel confident that the resources of the public lands are going to be protected.

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Failure to Provide Estimates of the Percentage of Stored Water Actually Retrievable

The EIR contrasts the groundwater storage and retrieval plan with the above ground open reservoir method of water storage. It cites a figure of approximately 22 percent evaporative loss from the Colorado River area dammed lakes. No figures are given for reservoirs near the coast. There is an estimate that about 2 percent of the ponded water to be stored for the Cadiz project will be lost through evaporation but there are no figures regarding the actual projected estimates of how much of that stored water can actually be retrieved. All EIR scenarios use the term "cycled" water to depict the portion of water stored and retrieved. All EIR scenarios indicate 100% of the stored water is accounted as retrieved. This is plainly wrong; the non-retrievable portion is added to the allowed "transfer" of native groundwater and further inflates the proposed output of this system in vast excess of sustainable levels.

In addition to the evaporative losses (which can happen multiple times if the mound of stored water is pumped and re-ponded to reduce disbursement loss), a significant amount of this stored water will make its way into the Bristol and Cadiz Dry Lakes. The EIR shows charts which indicate increase in water table levels in both dry lakes. This is the result of stored water migrating both with the existing gradient as well as the increased mounded gradient caused by the percolated storage. The longer the period of storage the greater the percentage of stored water lost to the dry lakes.

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Reasonable estimates of the percentage of stored water actually retrievable for varying periods of storage are necessary to make any real determination of the validity of this type of storage verses traditional reservoir storage. We need to be able to see if the inevitable environmental impacts of

this process really are worth it. This is especially necessary if it is true that the current agricultural usage already draws out all or most any native groundwater available at a sustainable rate.

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Failure to Provide an Alternative which Draws Water from the Upper Aquifer

All the groundwater information agrees on two things: 1) There is some understanding of the movement, age, percolating dynamics, and recharge groundwater in the UPPER level alluvial aquifer. 2) The movement and recharge of groundwater in the lower level alluvial and carbonate basement aquifers is either unknown or “not well understood.” It seems that the main reason to go to the lower alluvial aquifer for drawing water is for additional purity and because certain scenarios project continued multi-year pumping at a rate of up to six times the disputed 30,000 acre-feet per year. A deep well will allow a short-term overdraft of many, many years worth of native groundwater.

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A project is required to present an environmentally preferred alternative. A clear environmentally preferred alternative is to take out the water you put in from the aquifer you put it in. This seems to make sense. Take out what you put in. This is not given as an alternative, all pumping is from the lower aquifer, all storage is in the upper aquifer. Why isn't this included?

Failure to Show Impacts or Provide a Limitation on Short-term Overdraft Retrieval

The EIR scenarios show that the intention of the Metropolitan Water District is to pump native groundwater at the rate of up to 150,000 acre-feet per year. Several scenarios indicate that in a multi-year dry spell when the “stored” or “cycled” water has been used, pumping will continue at the 150,000 acre-foot rate perhaps for several more years. This would result in a native groundwater overdraft of up to twenty years worth or more if the 30,000 acre-feet per year figure is accepted. If this proposal is carried forward there must be an analysis and determination of a reasonable limit of short-term overdraft and the environmental consequences involved.

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Inappropriate to Pollute Pure, Native Groundwater under Public Lands; Construct a Filter Plant at Iron Mountain to bring the Colorado River Water up to Cadiz Native Groundwater Standards

An element of the environmentally preferred alternative would a component in the conveyance transport system which purified the Colorado River water to Cadiz Valley groundwater standards. This would allow the mixing of the two water sources without appreciable pollution of the native groundwater. Pollution of an intact Pleistocene aquifer to “purify” water for urban drinking is not an acceptable “multiple use” of BLM-administered public lands.

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Failure to Analyze Impacts of Groundwater Manipulation on Cadiz Dunes Wilderness

The EIR states that the groundwater level under Cadiz Dry Lake will fluctuate depending upon the phase of storage, retrieval, or transfer. The Cadiz Dunes Wilderness Area site right on top of the groundwater path between the project and the Cadiz Dry Lake. One of the unique attributes of sand dune habitats for insect, plant and wildlife is the stored water within and under desert sand dunes. What impact will this manipulation have on this fragile environment? No data is presented regarding this prospect.

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Failure to Analyze Long-term Affects of Groundwater Manipulation on Surrounding Springs both in and not in Wilderness Areas

The 1994 Desert Protection Act specifically identifies water rights as a part of the resources granted to the designated BLM wildernesses in the act. As expressed through surface seepage in springs, the groundwater is thus legally protected for wilderness areas. Please be sure that long-term effects on springs at distances from this project are professionally studied as part of any re-distribution of this plan. Desert Survivors also hopes that the BLM will consider it to be the rightful role of the landowner of public land to defend non-wilderness springs as well.

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Conveyance Facilities in BLM Class L (Limited) Lands are Inappropriate

The 1976 FLPMA Act described specifically the California Desert Lands as requiring a special level of protection. The current California Desert Protection Plan indicates that Class L lands should 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." The area surrounding the Iron Mountains has been designated Class L. These lands have special sensitive resources, some of which are described in the EIR. Desert Survivors would like to protest the proposed usage of Class L lands for pipelines, four-story powerlines and roads. There are non-Class L alternative routes which were discarded from the EIR. Lets get these back.

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No Cost to Consumers Figures Included

Part of the Impact of this project is the cost per acre-foot of this water as passed on to the Met water customers. If the cost is too high, the demand slackens. As part of the purpose and need for the project the a certain demand or "need" was presented. Part of this equation is the cost of the water produced by this project. What is the projected cost to consumers of the native groundwater? How much will Cadiz be paid and how much will the Met have to pay in operation and capitalization amortization costs? How does the costs of this project compare with that of the Hayfield project which the Metropolitan Water District has embarked upon? Will the water users of Southern California be paying three or four times as much for this water as that of the Hatfield Project?

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Lack of Information on Existing Utility Corridors

The project requests a new utility corridor over undeveloped BLM public lands. The document does not provide the reviewer with a map of existing already-designated utility corridors. Is it the case that the Arizona and California Railroad right-of-way is already a utility corridor since both it and a gas pipeline share it? The purpose of these corridors it for new projects to confine themselves into shared usage of existing routes rather than disrupt additional sensitive lands. No new corridor is needed. Use the existing right-of-way.

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No Consideration of Roadless Area Impacts

A nationwide effort is being made to identify the last of our country's roadless areas. Especially in the Forest Service-managed portions of our public lands, this quality (roadlessness) is being considered in long-tern planning. It has been stated that there is no place in the lower 48 states of the United States that is farther than 11 miles from a road. The Iron Mountain/Kilbeck Hills

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Roadless Area contains approximately 166 sections, over 100,000 acres of contiguous roadless public land. It is one of the largest mostly pristine areas left in the Mojave Desert not now protected with official wilderness status. These are areas to be treasured for their lack of human intrusions, not piece-mealed into degraded split-up portions with their integrity as wildlife habitat and their aesthetic wholeness long-gone. Survey work is now being conducted by volunteer wilderness advocate groups to enroll a General Patton/Iron Mountain Wilderness Area into the upcoming California Wildlands 2000 legislative campaign. Destruction of this existing roadless area and potential wilderness area should not be accepted by the BLM; any impacts need to be at least assessed in the EIR and presented for public comment.

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No Evaluation of Landscape Resources

On February 16th, 2000, Secretary of the Interior Bruce Babbitt announced an address in which he defined what he called an evolving but important new type of public land management - National Landscape Monuments. He stated that the time had come for the BLM to lead the way in defining, protecting, and managing these large national landscapes in a more inclusive, yet still stringent fashion - different from national park management. The Secretary's speech resonated in me as I drove down the Cadiz/Danby road recently. The extent of this landscape is vastly larger than any one wilderness area, larger than any one desert valley, it is a complex regional landscape including the water sheds described in the EIR with the Sheephole and Danby Dry Lake valleys as well. There are railroads, paved roads, dirt roads, mines, a few ranches, mines, historic landmarks, and some agriculture. The over-riding feeling is a journey to the past. This is Route 66 landscape, it is a 1940s, 1950s, and 1960s landscape. It is a land of old railroads, old tourist stops, abandoned or barely functioning salt and mineral mines. Anything new here is an intrusion on the landscape.

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Route 66 Historic National Landscape Monument

When I first drove down the Cadiz/Danby road several years ago, it was a cloudy day. As it got later and the light waned, we heard the drumming of an approaching railroad train. It's five throbbing diesel engines were coming so slowly across the open desert, from nowhere to nowhere. I felt a sense of mystery and gladness that I was experiencing this encounter. I have always referred to the Arizona and California Railroad as the "ghost" train and always look forward to another chance to view its ponderous journey. This is a landscape feeling. This is an aesthetic feeling. Desert travelers have a right to expect these kinds of experiences. They are degraded by additional "new" modern improvements. The Route 66 experience is valid. This area expands on that entwined feeling of vast desert space and mid-term history. These are significant elements in this greater landscape. They are definable, they are protectable, they deserve analysis and an impact evaluation. Us history buffs deserve some respect.

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Aesthetic Impact Incomplete and Inaccurately Presented

Contrary to the EIR there is NO existing powerline along the railroad right-of-way between the salt works at Danby Dry lake and just south of Cadiz where the natural gas pipeline crosses. This twenty-five mile stretch is one of the most open, pleasing, desert graded-dirt road drives. The openness of the valleys and the mysterious qualities of this "backcountry-byway" would be irreparably harmed by the presence of a four-story modern powerline boxing in the driver's

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relationship with the landscape.

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Failure to Present a Complete Environmentally Preferred Alternative

A critical portion of the NEPA requirements in reviewing the potential impacts of a project proposal is the identification and description of the "environmentally preferred" alternative. This alternative is to be developed without the limitations of cost if otherwise feasible. This alternative will allow the reviewer a contrast to those alternatives which are presented as more practical economically.

The Cadiz project rejected its initial alternatives E-2 and E-3 which crossed Danby Dry Lake along the powerline corridor and followed the railroad right-of-way to the project site. These routes do not disrupt any Class L limited use areas, these routes do not disrupt existing significant roadless areas, these routes do not add to impact on wildlife and plant resources, these routes do not add to the destruction of cultural and archaeological resources, these routes take advantage of existing utility rights-of-way. These routes are the environmentally preferred alternatives. They were rejected for unspecified cost reasons and we were not given the ability to contrast these less-impacting routes with those presented..

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A key element of the environmentally preferred alternative is the absence of a companion powerline along the railroad right-of-way. Either put it underground or include the natural gas alternative which needs no powerline.

Lets add in the pre-purification of the groundwater stored and pumping only from the upper alluvial aquifer and maybe we have a project alternative which we can consider, if the sustainable groundwater yield can be resolved.

SUMMARY

Desert Survivors is very concerned with this project. Even if the additional information in the USGS and Durbin/Foster groundwater studies are adopted as guidelines, our concerns our not abated. As you can see, many other issues are raised by this proposal. In the end however, two major ones predominate:

The BLM must be pro-active, protective, and knowledgeable regarding the groundwater resources under its public lands.

In the California Desert, precedence must be given to the preservation of undeveloped natural landscapes with emphasis on the special environmental and cultural resources and management of sustainable low-impact public recreation.

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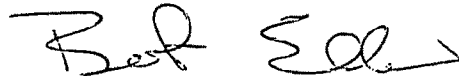
The Cadiz Groundwater and Dry Year Storage Program, as presented, leaves too much out, raises too many questions, and fails to find a proper niche for itself which accords its neighbors sufficient respect.

The No-Action Alternative is appropriate; failing that, much more work is needed before a revised project document should be presented to the public again.

Thanks for your time and keep us informed of any new information about these issues. I would be happy to discuss any questions you have regarding these comments.

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Sincerely yours,

A handwritten signature in black ink, appearing to read "Bob Ellis". The signature is written in a cursive, somewhat stylized font.

Bob Ellis
Cadiz Groundwater Task Force Chair
Desert Survivors