

**RESPONSE TO COMMENTS
ON SEPTEMBER 1990 DRAFT
ENVIRONMENTAL IMPACT REPORT**

VOLUME III

**WATER FROM THE OWENS VALLEY
TO SUPPLY THE SECOND
LOS ANGELES AQUEDUCT**

**1970 to 1990
1990 Onward, Pursuant to a Long-Term
Groundwater Management Plan**

SCH # 89080705

CITY OF LOS ANGELES

DEPARTMENT OF WATER AND POWER

AND COUNTY OF INYO

AUGUST 1991

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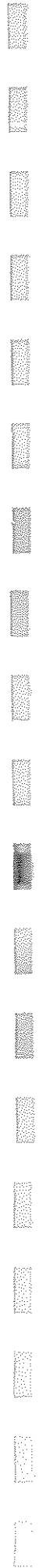


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Letter D75

Brent Patterson

RECEIVED

JAN 28 1991

EIP ASSOCIATES
SAN FRANCISCO, CA.

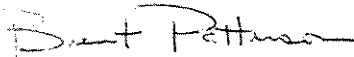
January 26, 1991

John Davis, Senior Vice President
EIP Associates
150 Spear Street, Suite 1500
San Francisco, CA 94105

Dear Mr. Davis:

I am writing to recommend that the L.A. - Inyo water agreement only allow water out of the root zones for a 1 year maximum time period, before water is required to be fully replenished within that root zone for a year period. I also am recommending that the measurement of root zones be done with the method that is the most conservative (i.e. will be the most likely to indicate water has dissipated within that root zone). I am also recommending that all measurements and statistical research used to base the current EIR and Green Book evaluations on, be at statistically significant levels.

Respectfully,



Brent Patterson

Brent Patterson
663 W. Pine St
Bishop, CA 93514

1

**RESPONSES TO COMMENTS
LETTER D75**

RESPONSE D75-1

Please refer to responses to master comments PD-4, regarding low groundwater levels, PD-12 regarding groundwater mining, and PD-17 regarding the drought recovery policy.

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Letter D76

Dr. Nancy Peterson Walter

17048 Sunburst
Northridge, CA 91325-2606
(818) 349-0382 ~~RECEIVED~~
Jan 26, 1991

JAN 30 1991

EIP ASSOCIATES
SAN FRANCISCO, CA.

City of Los Angeles
Department of Water and Power
and County of Inyo

RE: Water From The Owens Valley To Supply The Second Los Angeles
Aqueduct - 1970 to 1990 - 1990 Onward, Pursuant To A Long Term
Groundwater Management Plan

I would like to comment on various portions of the EIR but for
the purposes of this letter I will restrict my comments to the
Cultural and Historical Resources section and Ancillary
Facilities, Chapters 15 and 16.

In 15.1, the first problem is the use of the term "Owens Valley
Paiute." Prior and during historic contact the Owens Valley was
occupied by several groups of Northern Paiute and Shoshone. The
Northern Paiute in the central and northern sections of the Owens
Valley were members of very distinctive bands who each had their
own dialect of Northern Paiute. In the central and southern
portions of the Owens Valley, there were Shoshone who spoke their
own dialect of Shoshone and current research considers them to
have been members of the Panamint Shoshone Band. The current
Paiute-Shoshone peoples of the Owens Valley reservations are
descendants of these many bands. They cannot be lumped into one
category.

The irrigation mentioned in 15-1 is extremely important and a
factor that needs investigation by a qualified Great Basin
archaeologist. Irrigation networks existed from Round Valley
down to at least Sheperd Creek and they also have been found in
Fish Lake Valley. While initial research by Steward felt they
were the result of contact with early settlers, he later changed
his opinion and decided it was an example of the early stages a
hunting and gathering society make as they transition to
agriculture. There has never been a systematic study of the
irrigation networks to see what actually remains. This is
important because if the networks can be found, it gives the
current Owens Valley tribes water rights that supersede all
existing water rights in the Owens Valley. To my knowledge,
aboriginal water rights have never been discussed or mentioned in
any City of Los Angeles Dept. of Water and Power documents to
comply with federal regulations that existed in 1937 when the
Land Exchange Agreement was made. The possibility of these rights
was ignored.

Also, Steward has not been the only ethnographer to work in the
Owens Valley. When I did my doctoral dissertation I found
ethnographic material available and this material is accessible,
as is my dissertation. Not only is my dissertation available
through University Microfilms (1986), but copies are available on
all the Owens Valley Reservations, the Eastern California Museum,

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and Laws Museum. Copies are also available at University of California, Davis and University of California, Riverside.

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8
In looking over the references, there is no mention of the person doing the cultural resources portion talking with anyone from any of the four reservations in the Owens Valley. This in itself is a problem since federal and state guidelines (much less professional ethics) state that local American Indian communities must be contacted and the results of that contact mentioned.

With regard to "Fandango," this is an historic term and should be treated as such. It happens to be a Basque word. The Indians probably had traditional gatherings which came to be called fandangos but the user should be aware of the origin of the word.

Plant foods have been recorded by several ethnographers from Steward on. The use of some plants still continues - I have gone gathering pine nuts since 1977 with several elders representing more than one family on the Bishop Reservation whose immediate ancestors were from different geographic areas within the Eastern Sierra. I have also gone with elders to gather Ephedra for use as Indian Tea and to gather Piagi.

On page 15-5 of the EIR, it states "...pinenuts began to diminish as trees were cut to supply lumber for the mines." The trees cut were not pinon since pinon makes good firewood but is not used for lumber. The trees cut for Bodie were Jeffery Pine. The lumber mill for Bodie south of Mono Lake is in a Jeffery Pine forest with some lodgepole but pinon does not grow in that area. Pinon was cut for fuel but there were and still are pinon areas where collections for family consumption occur. Pinon trees are not found on the floor of the Owens Valley.

In so far as prehistory is concerned, p. 15-3 in the EIR, the mention that dates in the Owens Valley are not earlier than approximately 3,500 years old is not a totally accurate statement. The bands living in the Owens Valley have traditionally exploited the resources of the surrounding area where date in excess of 8,000 years have been found. There are no pinon trees on the valley floor and the pinon camps in the surrounding mountains were used by those Owens Valley bands who journeyed into the mountain zones where the pinon grow. The same is true with the Pandora Moth larvae which is found in the Jeffery Pine zone south of Mono Lake extending down to the Mammoth area. Dates from the valley proper are not necessarily indicative of whether or not the ancestors of the current Owens Valley people lived in the valley. They were hunters and gatherers and often went to the area of the resource they were exploiting on a seasonal basis.

In the Historical portion it should be noted that the evidence for Joseph Walker actually being in the Owens Valley is source dependent. Some historical accounts place him in the valley and some point out that he did not actually come into the Owens Valley. History can be written many ways and when doing accurate

work for a document such as this, the writer should take care to mention that the probability of Walker having been the area is high but unconfirmed or dependent upon source, i. e. five sources say he was the first and nine sources say the evidence is not there to state with any degree of accuracy that he came through the Owens Valley.

9

The reference to Manzanar was of interest to me since the land was at one time considered by the Dept. of Water and Power as a possible location site for the Indians. This information is in both Federal and Dept. of Water and Power records and should have been noted since the report is considered to be a Dept. of Water and Power as well as Inyo County document.

10

The Results of the Record Search (page 12-5) should be sufficient to point out that the EIR being considered has significant impact upon the cultural resource sites along the proposed project area. The number of sites on the National Register of Historic Places should illustrate that the proposed project has some serious problems.

11

In looking through the material in 16. Ancillary Facilities I was struck by the lack of information as to how the project would impact the agreement between the City of Los Angeles and the Federal Government to comply with the regulations of the Land Exchange Act of 1937. What will be the exact impact on each reservation? What mitigation measures will occur once the impact is known? What do the people of the reservation have to say about the measures and since they are on federal reservation lands what attention has been paid to Indian water rights? To Indian civil rights? To the fact that the probability of aboriginal water rights is very high? To the Winter's Doctrine (which was totally ignored by the Land Exchange Act and could potentially make the act null and void?) What is the opinion of the Department of Interior, Bureau of Indian Affairs?

Sincerely;



Dr. Nancy Peterson Walter



**RESPONSES TO COMMENTS
LETTER D76**

RESPONSE D76-1

Comment noted. No further response is required.

RESPONSE D76-2

Please refer to responses to master comments PD-8, PD-9 and PD-10 for a detailed discussion of the relationship between the proposed project, Draft EIR and Indian tribes.

RESPONSE D76-3

Comment noted. No further response is required.

RESPONSE D76-4

Please refer to response to master comment CL-3 regarding consultation with Indian tribes during preparation of the Draft EIR.

RESPONSE D76-5

Comment noted. No further response is required.

RESPONSE D76-6

Comment noted. No further response is required.

RESPONSE D76-7

Comment noted. No further response is required.

RESPONSE D76-8

Comment noted. No further response is required.

RESPONSE D76-9

Comment noted. No further response is required.

RESPONSE D76-10

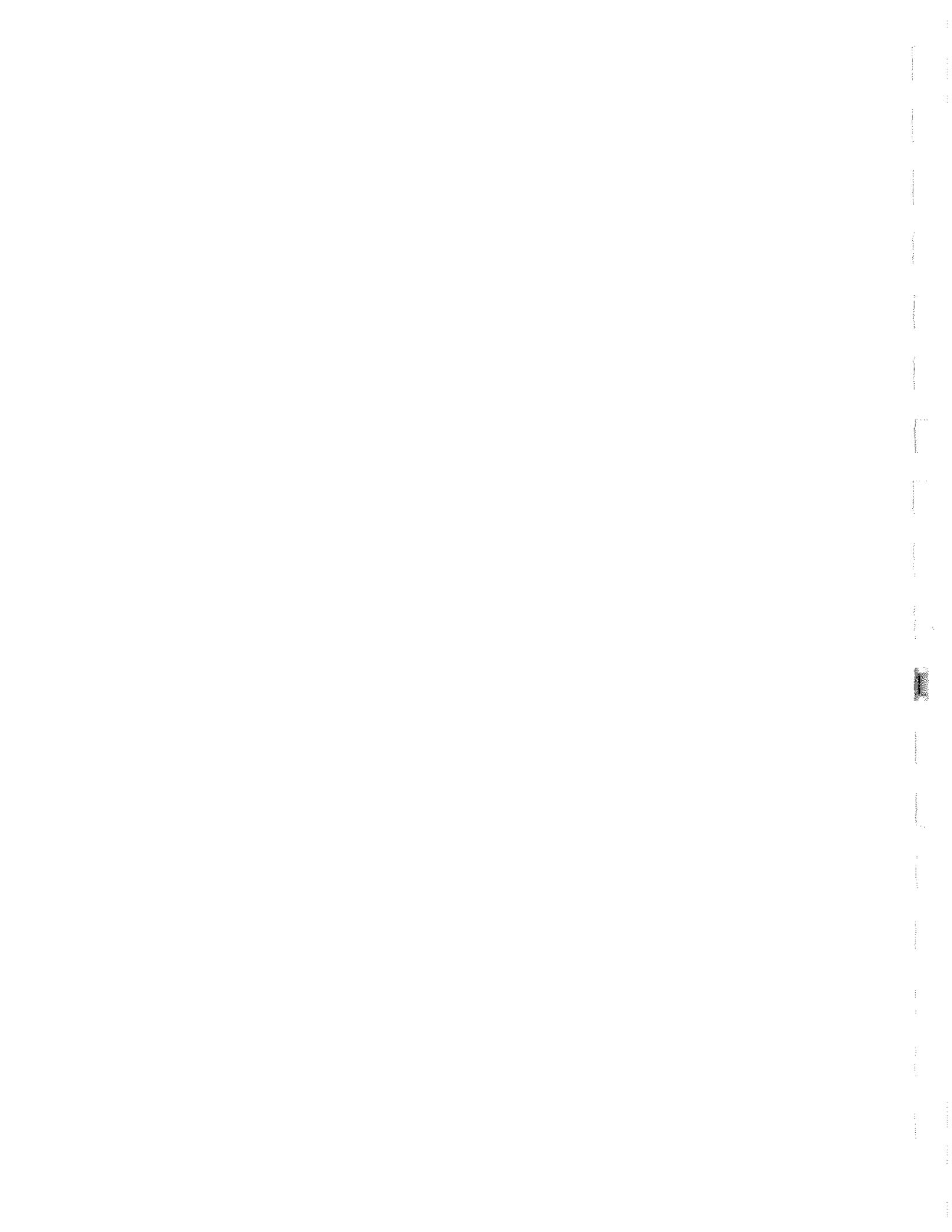
Please refer to responses to master comments CL-1 and CL-2 for discussion of archaeological impacts.

RESPONSE D76-11

Please refer to responses to master comments PD-8, PD-9 and PD-10 for a detailed discussion of the relationship between the proposed project, Draft EIR and Indian tribes.

Letter D77

Robert Jellison



LETTER D-77

Rt 2 Box 16A
Bishop, CA 93514
January 27, 1991

John Davis, Senior Vice President
EIP Associates
150 Spear St., Suite 1500
San Francisco, CA 94105

Dear Mr. John Davis:

I have spent considerable time reviewing the draft EIR on "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct" and submit the enclosed comments. My comments are broken into four sections: an overview, the draft EIR (Vol I), the Stipulation and Order (Vol II-B), and The Green Book (Vol II-F).

I look forward to my comments receiving careful review and anticipate the Final EIR will reflect this. Thank you for the opportunity for comment and for extension of the public comment period.

Sincerely,



Robert Jellison



Comments addressing the draft EIR entitled "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct", SCH #89080705.

An Overview

In general, I was disappointed with the accuracy and production of the EIR. The draft is rife with errors, inconsistent terminology, internal inconsistencies between stated facts, mislabeled graphs, and other production flaws. While much of these are cosmetic a more serious shortcoming is the organization. To meet the goals of CEQA an EIR must be prepared in a way which allows the public to assess the environmental consequences of a proposed project. The organization, cross-referencing, lack of an index, inconsistent use of terms, and omission of important maps and survey data make this extremely difficult even to a scientist, as myself, experienced in reading EIR's. Although these may not in themselves make the EIR legally inadequate, several important areas of omission do.

This draft EIR is legally inadequate in three general areas: the pre-project description, the description and proposed mitigation for damaged which has already occurred, and the proposed mitigation for future affects. Given the major changes which are required to make this EIR legally adequate, a second public review period will be necessary. Comments to support this assertion are detailed below with references to relevant pages and paragraphs in the draft EIR.

Vol I

Summary

Agreement

1 S-5, ¶1: Management types for A, B, and C are not based on dominant species (see Green Book).

2 S-6, ¶1: Agreement does not provide for avoiding significant decreases from 1981 - 1982 levels (this is reference year for supplying irrigated lands).

Summary of impact

3 S-11, ¶2: There is no evidence to support the statement that vegetation had recovered to its greatest vigor since 1970. This is a rash assumption which hides the environmental impacts of the proposed project. The USGS study (Open file report 88-715) indicates there was a 40% decline in evapotranspiration during 1970-1984 compared to 1963-1969. This would certainly be accompanied by a significant decline in vegetation.

3 S-11, ¶2: The Agreement cannot be considered a mitigation unless it is shown capable of avoiding described impacts of pumping. This has not been done. In fact, much evidence to the contrary has accumulated.

4 S-11, ¶4: The agreed "conservative management" indicated is not conservative at all and misleads people which only read the summary. The "Drought Recovery Policy" must be strengthened if it is to have any meaning at all. Wells must not be turned on until the soil moisture returns to that required by the vegetation mapped in 1984 - 1987. The "Drought Recovery Policy" must also remain in effect until the monitoring program is shown capable of detecting a specified level of change and determining if it is due to pumping.

5 S-13, ¶2: The analysis of grazing impacts associated with changes in water practices is completely inadequate (see below).

Areas of Controversy

- S-21: A primary area of controversy is the lack of a mandatory water conservation policy in LA and the complete lack of any growth policy. Current and future growth in LA will completely use any water they successfully pump and transport from the Owens Valley, leaving them with the same shortages they face today. In the meantime they will have caused irreparable damage to the environment of the Owens Valley.
- S-21: The ability to revegetate areas which have suffered significant environmental affects due to pumping is unknown and an area of controversy.
- S-22,¶1: While it is true independent scientists have criticized the methods employed in the soil water budget, more serious concerns were voiced and continue to be voiced about the ability of the monitoring program to even evaluate if the soil water budget is working.
- S-22: A primary area of controversy is reconstructing the pre-project conditions. While several vegetation studies were cited (including aerial monitoring), these were not included in the EIR. This raises very serious concerns as to the integrity of the whole EIR since the best available data were discarded at the insistence of LADWP. This is completely unacceptable and an independent review team must assess the relevance of the previous aerial work toward establishing the pre-project conditions.

Water Management in Owens Valley

- 4-7: This figure should not include Mono County since it completely obscures the changes in irrigated acres which took place due to the project in Inyo County. This is typical of the general obfuscation which permeates this EIR, all with the effect of hiding the real environmental damage which has resulted from the project.

Proposed Project

- 5-3,¶1: Worst case scenario should be extended to five years based on current experience and historical records.
- 5-5,¶1: Irrigated native pasture should not be allowed to change to cultivated pasture (alfalfa) without an EA done on the effects on wildlife.
- 5-5,¶2: A quantitative assessment of these environmental habitats must be done before the EIR is adequate.
- 5-5,¶3: This definition does not prevent groundwater mining (depletion of underground aquifer) since it neither accounts for losses due to evapotranspiration (ET) or underflow out of the Owens Valley. The underflow out of the aquifer is estimated to be between 5-20,000 ac-ft per year (USGS 88-715). Since groundwater mining is based on a 20 year average, this omission makes the estimate of available groundwater which can be used without mining the aquifer to be 100-400,000 ac-ft too high without even considering the losses due to ET.
- 5-19: Table 5-2 These are enhancement/mitigation projects not environmental projects.
- 5-24,¶4: The release of wetlands is inconsistent with the agreement and should not be allowed. If wetlands are to be transferred as part of the mitigation for the proposed project, this EIR must address the environmental effects of these transfers.

Alternatives to the Project

- 6-20,6-21: The discussion of growth limitation and the environmental effects of having a surplus of cheap water on the environment in LA is inadequate. It is widely recognized that LA could not have grown to its current size without it's extensive water gathering facilities. Its current size contributes to the extreme degradation of the environment in Southern California including one of the highest air pollution rates in the country. The continued availability of cheap water as a result of the past and ongoing water grab in the Owens Valley will only exacerbate these problems.

6-21: Water conservation is not adequately addressed. Until LA implements a mandatory water conservation program and adopts a growth management plan, no environmental damage is acceptable in the Owens Valley.

Water Resources

Introduction

9-1: A definition of water resource and what would constitute a significant impact is necessary. This chapter describes gross changes in the water budget; (a 40% decline in ET), the disappearance of pristine springs, the reversal of underground flows, and deepening of the water table. Yet none of which are considered a significant effect. One begins to wonder what a significant effect would look like.

9-1,¶3: The small amount of outflow is 10,000 ac-ft year. Since the groundwater mining definition extends back 20 years, this omission accumulates. The current definition allows a one-time bonus of 200,000 ac-ft to be mined and a yearly bonus of 10,000 ac-ft.

Impacts of the Project

9-78,¶0: 109% a the long-term average is not a "very wet" period.

9-80: Table 9-11 includes subsurface outflow in it's budget. This must be included in the definition of groundwater mining.

9-83,¶1: This is a prime example of how the environmental effects of an impact are minimized by referring it to another section. Dispersed springs in a desert area are an important and unique water resource, quite separate from the vegetation associated with these springs. Wildlife depend on these and a single conduit (the Lower Owens) cannot mitigate the environmental impact of the loss of springs which were widely dispersed.

9-83,¶2: Application of surface water to remaining natural springs is not acceptable.

9-80: A groundwater budget for the period 1984-1990 must be included to assess the probably impacts of the proposed project.

Vegetation

Vegetation Characteristics

10-4: Line showing median is not placed properly at 3.3".

10-25,¶4: The fact that the plant community on a particular parcel is calculated to use less than average precipitation does not mean it does not depend on groundwater. Degraded shrub communities may still have deep root systems which indicate dependence on groundwater. Also the average precipitation occurs rather infrequently in the Owens Valley. A much more appropriate statistic of precipitation for classifying communities would be the median since this is the expected rainfall in any year. There are many parcels which contain dominant species which are typical of groundwater-dependent communities which due to severe pumping or grazing impact have been degraded to a point where it is calculated they use less than precipitation. In this manner, many areas which should be classified as type B may have been put in type A. The extent to which this has been done must be documented. What percent of type A consists of communities in which the dominant species would indicate groundwater dependence?

10-25: It is inexcusable that LADWP has not provided the Water Department with the 1984-1987 vegetation inventory. This exhibits an extreme lack of poor faith on their part and/or the lack of will on the part of the Inyo County Water Department. There are many

questions concerning this data which are critical to implementation of the Agreement as a mitigation which have not yet been answered.

10-19: The plants and habitats of concern have been inadequately described. A quantitative description of past, current, and possible future effects on these species and habitats is necessary to assess the project.

Pre-Project Setting

10-27 There was a complete failure to document the loss of small dispersed springs along known existing fault lines. Discussion has been limited to the major springs. Small dispersed springs are a valuable resource for wildlife in a desert region.

10-33,¶10 All did not cease and all did not return.

Impacts and Mitigation Measures

10-28,¶4: Water also leaves as underflow as documented in all reports on the groundwater hydrology of the Owens Valley.

10-48 The pre-project description is woefully inadequate. Table 10-1 describes the available information on the vegetative pre-project conditions. Very little of this material was used.

10-41,¶3: Aerial maps from 1973-1974 are discounted due to "their limited usefulness. The Jacques report (1990) is the best analysis done and has been arbitrarily discarded following pressure from LADWP. This analysis which examines 291 stereo pairs from 1968 and 1981 concludes that 68% of the sites experienced a negative vegetation change. This report makes nine recommendations which would have aided in establishing a pre-project description including an analysis of the 1973-1974 photos. This blatant omission renders the entire EIR inadequate. An honest evaluation of the environmental impacts of the proposed project have not yet been made.

10-46,¶4: Griepentrog and Groeneveld conclude 25,000 acres affected adversely by groundwater pumping. Where is this covered in specific impacts? All of this area must be addressed.

10-47,¶10: A decrease of 40% in evapotranspiration is a significant impact. This must be specifically addressed as an impact.

10-47,¶11: This is a gross understatement of Jacques findings. The EIR must include an accurate summary of this critical study.

- A color coded valley-wide map of areas adversely affected by pumping with acreages and affected springs, similar to the vegetation management maps, is a requirement for assessment of the impacts of the project; past, present, and future; and the appropriateness of proposed mitigation.

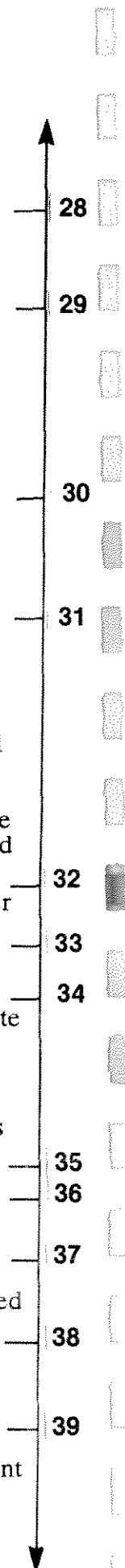
10-51 (Impact 10-3) Shepherd and Birch Creek were altered.

10-53 (Impact 10-7) There has been a significant impact on the vegetation surrounding these reservoirs.

10-58 (Impact 10-12) The prompt implementation of mitigation outlined in the Agreement has not been followed at Five Bridges. The lack of cooperation on LA's part highlights the need for strict procedures and possibly punitive damages.

10-59,¶3: Revegetation of the Symmes-Shepherd wellfield is experimental, having not been accomplished in other areas. This highlights the questionable nature of requests for additional wells in areas which will affect the few remaining springs.

10-62 (Impact 10-14) Springs and seeps provide unique habitat which is not appropriately mitigated by the Lower Owens River. The dispersed nature of springs is a major component of their environmental value. Also, riparian vegetation along the Lower Owens cannot mitigate these unique and rare habitats often containing endangered species.



- There has been no attempt to document the habitat loss for rare and endangered species associated with these springs.
- There are no provisions for those areas that did not recover during the '82 runoff year, Laws, Fish Springs, and Blackrock.
- The mitigation efforts which involve applying water currently being conducted should be modified to create more natural spring conditions.

- 40 10-63 (Impact 10-15) Given the irreversible loss of spring habitats, the few remaining springs must be protected, most importantly Reinhackle. Any effect on this spring should be mitigated by avoidance of a decreased spring flow. Any decrease in flow should promptly shut off nearby wells. Surface application of water to this last remaining major spring is not acceptable given the other cumulative impacts in the valley due to groundwater pumping. No further environmental damage should be allowed to occur to this area. It must also be protected from grazing.
- 41 10-63 (Impact 10-16): Irrigated lands that have remained barren should be identified on maps. This would supply the necessary information for decisions regarding future potential impacts and mitigation practices.
- 42 10-65 (Impact 10-18): The Laws area has been heavily impacted. There has been no concerted effort to differentiate which impacts are due to which practices in this area.
- This area includes very significant impacts due to water spreading and ground recharge. Since changes in groundwater recharge facilities and activities are part of this project, the effects of the abandonment of previous recharge facilities must be assessed.
- 43 10-67,13: It is stated "The primary cause of the loss or reduction of vegetation is, therefore, not a result of the project." How much of the loss was due to increased pumping?
- 44 10-68,11: The negative effects of cattle grazing which is mentioned here and in other parts of the EIR is never adequately addressed.
- 45 10-69 to 10-74: The Lower Owens River is specified as a catch all for mitigating adverse environmental impact (Impacts 10-17, 10-14, 10-20) throughout the valley. This is inappropriate and unacceptable especially given the fact that data are not provided to assess the impacts. If further mitigation is not proposed, the adverse environmental impacts of the project have not been reduced to less than significant and LA must under CEQA find the benefits of the project outweigh the negative environmental impacts.
- It cannot be assumed the proposed agreement provides a valley-wide mitigation for the effects of groundwater pumping (Impacts 10-14, 10-18, 10-19,10-20) since its methods are largely untested and the proposed monitoring may not even be able to detect if they are working. The goal of the agreement which is to avoid these negative impacts cannot be assured with the current agreement (see comments on Agreement and Green Book).
- 46 10-70,14: The drought policy as written is inadequate since the vegetation has already suffered a severe decline due to the combined effects of pumping and drought. This drought recovery policy only requires soil moisture to recover to the needs of the present vegetation. Internal memos of the Inyo County Water Department reveal analyses which indicate a major portion of the current decline is due to the effect of pumping. A further weakness is the lack of any specified recovery period and the inability of the current monitoring program to "evaluate the effectiveness of the existing well turn-off/turn-on provision". This policy must be revised to require soil moisture to return to the needs of the vegetation present in 1984 - 1987. This must be implemented until it is shown the monitoring program is able to detect change and attribute which is due to pumping.

Wildlife

Pre-project Setting

- 11-30: A number of endangered and threatened species are present in the valley. The affects of the project on these species must be directly assessed including quantitative inventories.
- 11-39 (Impact 11-1) This description must be expanded to allow an adequate analysis of the environmental affects of the proposed project.
- The effects of the difference between a concentrated water resource (the Lower Owens) and dispersed water resources (natural springs) on the wildlife must be considered.
- 11-42: This chapter contains no references or footnotes. Can this be possible?
- This entire chapter is anecdotal, inaccurate, and inadequate. Since I am assured it will be rewritten and others have already commented extensively, I have limited my comments.

Air Quality

- 12-2: In general the number of stations at which air quality is monitored is inadequate, especially in the Laws region.

Energy

- 14-22: Please redo figures with inappropriate arrows and scales as in Figure 14-6.

Land Use and Economic Development

- 14-17: Impact 14-3 Changes in irrigation and cattle grazing have a significant effect on the environment. Since approval of grazing leases is a discretionary activity carried out by a public agency with significant environmental effects it is subject to CEQA considerations. In general, the treatment of the effects of cattle grazing accompanying changes in surface water management practices has been inadequate throughout the current EIR.
- 14-24 Land releases which are part of the proposed Agreement and project which may have a significant effect on the environment must be considered in the vegetation and wildlife chapters.

Ancillary Facilities

- 16-1: The effects of the abandonment of pre-project spreading areas in favor of more efficient recharge facilities must be adequately addressed. The large areas pictured on 16-3 show significant impacts due to changes in spreading which have occurred since 1970.
- 16-14 (Impacts 16-6 to 16-12). The Agreement is proposed as a mitigation for the significant adverse impacts of all new wells. Since the ability of the Agreement to mitigate adverse impacts will not be known until after the current drought recovery period, no new wells should be drilled until that time.
- The proposed new wells, ISB 3-4-5, will have a negative impact on the only remaining large natural spring, Reinhackle, and is unacceptable.
- 16-41: Does the Hillside Decree allow water to be pumped from the cone and exported? This is not clear. If it prevents the export of pumped water off the cone, what relevant Water Law allows an amount equivalent to that entering the cone as surface flows to be pumped and exported?

CEQA considerations

- 17-4: The discussion of growth inducement is incomplete and inadequate. Water availability does limit growth (e.g. Santa Barbara). The whole history of growth in LA was predicated on obtaining cheap water. There is not free market competition for water between farmers

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and cities and the statement that this has always been resolved in favor of cities is patently false. If this was true, why do farmers pay \$10 ac-ft while LA pays \$210?

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17-5: The cumulative impacts of grazing are inadequately described. What is the actual substance of the LADWP grazing plan which is to be continued? Are these available to the public? This EIR must present quantitative results of this grazing plan to enable assessment of the entire project.

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17-13: What is the evidence that in 1984 the vegetation was in it's healthiest state since 1970?

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17-13: The Green Book has been offered as the methods with which the adverse impacts of pumping will be mitigated. Although these are flexible and can be changed if the goals are not being met, the proposed Agreement must be able to detect if the goals are being met. There has been no analysis put forward which would allow one to conclude the monitoring program in the proposed Agreement is capable of detecting whether the goals are being met. This is a very serious shortcoming of the entire project since this is the primary tool for mitigation.

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EIR Authors, Org. and Persons Consulted

18-1: The pre-project description was woefully inadequate and does not meet the requirements put forth by CEQA. Given the difficulty of establishing the pre-project conditions in this particular case where the project has been conducted for nearly 20 years, a large effort should have been made to contact local biologists and/or scientists who previously conducted research in the valley. The list of contacted persons indicates such effort was not made and when such people were contacted their information was by and large ignored.

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Vol 2 Appendix B The Agreement

Goals and Principles for Groundwater Management

B-9: The composition of the technical group and qualifications required of members should be specified.

- Since the Technical Group makes many decision relating to implementation of the Agreement meetings must be public, a practice not followed over the past several years.

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I. Management Areas

A. Designated Management Area

B-9: The "worst-case" scenario should be based at least four or five consecutive dry years based on the current experience and historical records which indicate even worse droughts have occurred in the past.

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II. Management Maps

B-11: The arithmetic mean (average) is an inappropriate statistic to use for classification of plant communities since in years of very high precipitation much of the available water runs off rather than percolating into the soil. This statistic is thus artificially high relative to the plant's use of precipitation. The median would be a much more appropriate statistic.

B-11: The description of how communities were classified is incomplete and inaccurate and obscures the fact that shrub-dominated or even grass-dominated communities which have been severely impacted were placed in Type A classification.

III. Management Strategy

A. Overall Goal

B-12: The more thorough description of the "Overall Goal" in the Green Book (pg 1) should be included here.

B. Groundwater Mining

B-12: This definition of groundwater mining is inaccurate and does not further the goals of the Agreement. As seen in Table 14 of the Green Book this definition would allow an additional 1,500,000 ac-ft to have been pumped over the last 20 years. Assuming a 20% porosity and an equal drawdown over the entire valley (200,000 acres), this would have resulted in an additional lowering of the water table of 38 feet over the entire valley. To ignore evapotranspiration and underflow out of the basin is inappropriate and hides the uselessness of this provision.

F. Mitigation

B-12: The experience of mitigation at the Five Bridges impact area should give pause to the workability of the Agreement given the intransigence and uncooperativeness of LADWP. The persistent problem in acquiring the data from the baseline vegetation surveys (1984-1987) which the Water Department still does not have, the experience of handling (ignoring) aerial survey work, and general poor faith in notifying Inyo County Water Department of significant environmental activities call into question the entire joint management scheme. Based on past delays (20 years to prepare an EIR) and current cooperative attempts at mitigation, it may be necessary to include punitive or other special provisions for the continued violation of timetables and good faith.

IV. Vegetation Management Goals and Principles

A. Vegetation Management

B-18: Type D should not be allowed to go to E. This is stated in the Green Book and should be included here. Also irrigated native pasture should not be converted to cultivated pasture without an analysis of the effects on wildlife.

B. Determination of Significant and Effect on Environment

B-22: If a change from one classification to another or decrease in vegetation is measurable and determined to be caused by pumping then it should automatically be deemed significant unless otherwise agreed to be insignificant by both parties. The overall goal of the agreement is to prevent such changes due to pumping. Given the large significant impacts which have already occurred due to the project many of which have not been appropriately mitigated any further damage must be considered significant. If for reasons of limited spatial or temporal extent both sides agree it is not significant then no action would be required.

• In practice, only very large changes are likely to be statistically measurable and able to be attributed to pumping. A 35% decline between 1989 - 1990 in well fields compared to a 2% increase in control sites was just statistically significant in one analysis of recent monitoring data (see Inyo Water Department memos from staff to Greg James date 8/2, 8/7, and 8/12/90).

V. Groundwater Pumping Program

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A. Water Balance Projections

B-24: The water balance should include one-half the median precipitation since this a much better statistic of the expected rainfall over the ensuing season. The use of an arithmetic mean (average) in this instance is statistically naive and overestimates the expected rainfall.

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B. Well Turn Off Provisions

B-25: Well turn-off provisions should be considered on April 1st and October 1st. The current provision of July 1st is over half-way through the growing season. Desert plants will rapidly drop their leaves during period of stress. Since the water balance used in the shut-off provisions utilize the current leaf area, this timing will lead to a rapid downward spiral of leaf area during periods of drought. This has been amply demonstrated over the past three years (see LADWP, 1 July 1990 Water Balance Sheets).

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C. Well Turn On Provisions

B-26: If a well can be turned on as soon as the soil moisture returns to that required by the vegetation at the time the well was turned off, a long downward spiral of the vegetation will most likely occur as has been seen during the recent drought. A significant change which is attributable to pumping has been observed during this same period acting in accordance with the provisions of the agreement.

- An alternative which would assure the goals of the agreement are met would be to require the soil moisture is available which would sustain the vegetation present in 1984 - 1987 before any well would be turned back on. However, this would eliminate much of LA's ability to use the groundwater system to buffer the effects of climatic variation.

- A compromise would be to place a cap on pumping which would leave the amount of water needed by the 1984 - 1987 in the ground. This could be a five or ten year average much like that used in groundwater mining provision. This would assure the goals of the agreement are met while still allowing LA to utilize the Owens Valley groundwater system to buffer variations in water supply due to climate.

B-26: The provision which allows LA to unilaterally water the area of a monitoring site is unacceptable and would by itself render the whole Agreement meaningless.

- There are only 34 site to monitor 220,000 acres. If a monitoring site is watered it destroys its usefulness as a monitoring site. The only time a monitoring site could be legitimately watered would be if the entire area associated with that monitoring site was first watered. This would most likely involve thousand's of acres.

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VI. New Wells and Production Capacity

B-29: There is very little evidence that the current monitoring and well management program is capable of mitigating the effects of pumping. Several studies and analysis have provided evidence to the contrary. The current monitoring program may not even be able to assess whether the well turn on/off provisions are working. Current well turn on/off provisions have resulted in a significant decrease in leaf area in well fields relative to control sites. A recovery period from current drought conditions will be necessary to determine if modifications are required. It is premature to operate any new wells until the Agreement is shown to be an effective mitigation tool.

XIV. Financial Assistance

B-40: Money received from LADWP for monitoring and implementation of the Agreement should be so ear-marked. Successful meeting of the goals of the agreement require an extensive and expensive monitoring program. The Agreement will not be able to mitigate the affects of groundwater pumping unless the County Water Department is adequately funded and given first priority to this county money. An annual accounting of funds received from LA and the activities on which they are spent should be part of the ongoing mitigation required by CEQA.

XV. Release of City owned Lands

B-50: Release of lands should be consistent with the goals of the Agreement. This would preclude the transfer of significant wetlands for development purposes.

XVIII. Exchange of Information and Access

B-55: This is critical to the ability of the Agreement to mitigate the effects of groundwater pumping. During the past two years, Inyo County and LA have supposedly been operating under the terms of the Agreement. The exchange of information has not been "free" of timely.

Vol II Appendix F The Green Book

I. Vegetation Management

A. Management Goals

p1: This statement of the overall goal should be in the stipulated order (Agreement).

1. Type A Vegetation

p2: Median precipitation should be used

p3: The stated general goal to not convert type D Vegetation to cultivated agriculture should be in the EIR and Agreement.

B. Vegetation Monitor and Manage Practices

1. Type A Vegetation

p3: Many communities which were arbitrarily put into type A based on current cover (which may be greatly degraded) rather than community type may be partially dependent on groundwater. These must be monitored until it is determined they do are not affected by groundwater pumping.

2. Types B and C Vegetation

p3: Short-term survival of individual plants is only part of the goal of the Agreement. This is a long-term Agreement and seed production and recruitment is of equal concern to assure the long-term health of these communities. Most of the soil water balance calculations are based on absolute limiting moistures (the point at which the plant dies). This limit may be extremely inappropriate given we are interested in the long-term health of these communities.

p4: Each well should be connected to more than one monitoring site. It is probably impossible to show a change is measurable and attributable to pumping with a single monitoring site.

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pg8-10: Soil to plant water balance projection should be done prior to the growing season and pumping program projections. During a drought recovery this should be based on providing adequate soil moisture for the 1984 - 1987 vegetation baseline.

●One-half of the annual precipitation added to the computed plant-available soil water is inappropriate. The average precipitation graph in the EIR illustrates the median is below the mean. The median value should be used for the appropriate elevation of each monitoring site rather than including higher elevation precipitation values. The median value is a better estimate of expected rainfall during the coming season.

pg 11: Specified wells are exempted from automatic turnoff not from linkage to vegetation monitoring site.

pg 12: During the drought recovery it is imperative that wells not be turned on until the soil moisture is adequate to meet the needs of the vegetation as mapped in 1984 - 1987.

pg 12: DWP should not be allowed to unilaterally supply water to increase the available soil water in the area of a monitoring site. This would completely destroy the usefulness of a monitoring site (see discussion on corresponding section of Agreement). All decisions must go through the Technical Group. "In the area of a monitoring site" must be defined now or by the Tech Group in case by case basis. Monitoring sites should not be manipulated unilaterally.

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3. Type D Vegetation

pg 14: This is not currently being done the Inyo County Water Department and may prove costly. If the funds provided by LADWP are not adequate to meet the monitoring needs of the Agreement than it cannot be offered as mitigation in the EIR.

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C. Impact Determination and Mitigation

1. Determination of Significant Impacts

pg 20-22: This three step determination of significance is not in accordance with the goals of the Agreement (see corresponding section on Agreement).

pg 20: The monitoring program must be designed to detect a specified level of change. No analysis has been done to indicate what level of change the current monitoring program can detect. Until this is done, there can be no confidence in the ability of the Agreement to mitigate the impacts of groundwater pumping.

pg 20. Given the very high variability between monitoring sites and parcels with the same soil, vegetation, and precipitation conditions, it will not be possible to use control sites to detect change. If it is maintained that this can be done, then it should be demonstrated now before we accept the Agreement.

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pg 21. Comparison of recently deceased to live has not been demonstrated to be feasible in these communities.

pg 21. Aerial photos were ignored in trying to establish the pre-project conditions due to strong objections from LADWP. Evidence must be provided that this method will be acceptable in the future.

pg 21. Comparison of data from randomly selected transects to the 1984 - 1987 inventory is the only acceptable method with wide applicability. No analysis of the inventory data has been done to indicate the inherent variability in this data and how many random transects are required to detect a specified level of change. LA has not even provided Inyo County with this data! This is unacceptable.

pg 21. "Even a small documentable change" should be defined statistically.

pg 23. Method ii. of Determining Attributability is the only method which can actually determine attributability in a quantitative unbiased fashion. It is imperative that immediate attention be given to analyzing the 1984 - 1987 inventory to see if suitable control parcels and impacted areas could be even potentially be identified and attributability shown.

●The section on Determining Degree of Significance should be modified. The Agreement already asks Owens Valley residents to accept a 37% decline in evapotranspiration which will translate in decreased ground cover. Any further impacts should be considered significant. This is one of the weakest parts of the Agreement in terms of assuring the overall goals are met and the impacts of the proposed project mitigated (see discussion on corresponding section of Agreement).

D. Other Vegetation

1. Management

pg 31: Areas and plant communities of concern which are smaller than a mappable unit must be inventoried. This has not been done and may prove costly bringing into question the adequacy of funding to implement the mitigation required of the Agreement.

2. Monitoring

pg 32. What are the state and federal guidelines for monitoring rare or endangered species?

II. Vegetation Inventory and Management Maps

A. Inventory of Dominant Vegetation

pg 37: This mapping should have been based on a random sampling technique which continues to a specified level of error. Immediate revisit and mapping of a subset of these parcels is required to determine the usefulness of this inventory for the purposes specified in the Agreement.

B. Projecting ET from Dominant Vegetation

pg 39. Mean and median precipitation for each quad should be included in an appendix.

C. Vegetation Management Maps and Goals

pg 43: There are no goals given in this section.

pg 45: There is a strong bias toward classifying previously damaged communities which belong in Type B as Type A. How much of this occurred? An acreage figure should be provided.

III. Vegetation Monitoring

D. Projecting Transpiration Through the Growing Season

pg 55: The use of unit-leaf-area transpiration rates collected under normal conditions may not be much of a safeguard considering absolute limiting water potentials (point of plant death) was used throughout the analysis.

pg 55: Polynomial curves are probably inappropriate since most physiological responses of the plants are tied to day length and temperature both of which are more accurately represented by a sine curve.

84 pg 55: What is the error associated with parameters estimated from the polynomial fits? This is very important in assessing whether the water balance method can provide reasonable results.

pg 58: How good is the fit of leaf out to a normal curve? To assume the timing of leaf out is similar under drought and wet conditions may be questionable. What is the error associated with using a normal curve to describe this process which exhibits much variation.

E. Annual Biomass Measurements

pg 59: The location of these sites should be include on a valley map.

86 pg 59: These sites must be fenced from grazing to be useful.

F. Soil Water Measurements

pg 61: At least two sites are required to determine error and do any statistical analysis whatsoever.

pg 65: This screening method of psychrometer data is inappropriate and statistically naive. It will unnecessarily discard much data resulting in a decrease in the accuracy of the statistic.

87 pg 80: The use of absolute limiting water potentials rather than a more conservative value highlights the uncertainty associated with the current management proposal and the need for an adequate monitoring program capable of detecting change and attributing it to pumping. While a plant may not actually die before the water potential decline below this level, growth, maintenance, and reproduction may be greatly reduced and result in long-term declines in the community.

G. Projecting Seasonal Water Balance-Plant ASW and Trans

88 pg 88: Initial analyses of this method indicate there is no correlation between changes in plant leaf area and the estimated ratio of available to needed moisture (see Inyo Water Department Staff memos to Greg James & David Groeneveld; 8/2, 8/7, 8/12). While there are a number of possible explanations, this should direct serious analysis to the errors and assumptions involved in this method. An analysis of uncertainty propagation involved in the calculations should be made to determine if this method is even theoretically useful. This demonstrates again that the proposed mitigation in the Agreement is experimental and there is an absolute need for a monitoring program which can both detect change and attribute it to pumping.

IV. Hydrologic Management

C. Determining the Existence of Groundwater Mining

pg 100-112: This definition of groundwater mining is not consistent with the goals of the agreement (see discussion of relevant section of Agreement).

pg 110: Here the underflow into the aquifer is considered while the underflow out of the aquifer is ignored.

V. Further Studies

A. Projects

pg 117: These projects must be done before we know if the Agreement can even theoretically provide mitigation for the impacts due to pumping. If the monitoring program cannot even establish if the current provisions are working, appropriate changes to the Green Book following the drought recovery period will not be able to be made.

B. Studies

pg 118: Study #1 must be extended to include an analysis of the propagation of error in the estimates of soil water moisture and estimated evapotranspiration. This should be done soon to determine if the current method can even potentially provide useful information.

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**RESPONSES TO COMMENTS
LETTER D77**

RESPONSE D77-1

This is correct, management categories were based primarily on ET. The classification of vegetation into communities was based on dominant species. It is also correct that the 1981-1982 baseline refers to Type E vegetation and this is clear in the Agreement. Please refer to response to master comment S-1 for a discussion of vegetation baseline conditions.

RESPONSE D77-2

Although the statement is not supported by quantitative data, the EIR authors are unaware of any other period since 1970 when the vegetation was of greater vigor. For a discussion of the reduction of ET cited in USGS Open File Report 88-715, please refer to response to master comment VE-4.

RESPONSE D77-3

The goal of the Agreement is to prevent significant changes in vegetation through a monitoring program. Mitigation measures are provided in the event that unforeseen, significant changes take place. Please refer to response to master comment PD-17 regarding the drought recovery policy.

RESPONSE D77-4

Please refer to response to master comment PD-17 regarding the drought recovery policy now in effect.

RESPONSE D77-5

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D77-6

Please refer to response to master comment AL-3 for a discussion of conservation efforts by the City of Los Angeles.

RESPONSE D77-7

Please refer to response to master comment MT-2 for further information regarding the mitigation plans of the Green Book.

RESPONSE D77-8

During the 1991-92 runoff year the monitoring program has been greatly expanded to better evaluate the impacts of groundwater pumping during this drought. Also, please refer to response to master comment PD-17 regarding the drought recovery policy.

RESPONSE D77-9

Please refer to response to master comment EA-1 for a discussion of pre-project conditions, and VE-5 regarding the Jaques report.

RESPONSE D77-10

Data for Inyo County and Mono County were not separately compiled prior to 1968; this is why the data for Inyo and Mono Counties are combined.

RESPONSE D77-11

The citation in this comment of the worst-case condition assumed in the model is accurate; however, the assertion that the worst-case condition has occurred as postulated in the model during the fourth year of the drought is incorrect. Because runoff and precipitation was greater, and

pumping was less than the worst-case condition in each year of the current drought, it is believed that the worst-case scenario used in the model is still valid.

RESPONSE D77-12

Please refer to response to master comment VE-1 regarding the conversion of native pasture to alfalfa.

RESPONSE D77-13

Please refer to responses to master comments EA-1 and VE-5 regarding pre-project conditions. Please refer to responses to master comments PD-5 and WA-4 for a discussion of vegetation dependent on springs. Also see response A4-79 in Letter A-4.

RESPONSE D77-14

Please refer to response to master comment PD-12 for a discussion of the groundwater mining provision of the Agreement.

RESPONSE D77-15

Comment noted; however, it is inaccurate.

RESPONSE D77-16

Please refer to response to master comment PD-15 regarding the release of Los Angeles-owned lands and wetlands.

RESPONSE D77-17

Comment noted.

RESPONSE D77-18

For a discussion of conservation efforts by the City of Los Angeles, please refer to response to master comment AL-3.

RESPONSE D77-19

The term "water resources" includes the surface waters and groundwater of the Owens Valley. Standards of significance for water resources are presented on page 9-48. See also response to master comment WA-1. Please refer to response to master comment PD-12 regarding the groundwater mining provision of the Agreement.

RESPONSE D77-20

Comment noted.

RESPONSE D77-21

Please refer to response to master comment PD-12 regarding the groundwater mining provision of the Agreement.

RESPONSE D77-22

Please refer to responses to master comments MT-3 and MT-6 for a discussion of mitigation under CEQA and the Lower Owens River Project.

RESPONSE D77-23

Please refer to responses to master comments PD-5 and WA-4 regarding protection of springs in general and Reinhackle Spring in particular.

RESPONSE D77-24

Comment noted. The data presented in Table 9-11 in Chapter 9 of the Draft EIR, was the most recent data available at the time of the computation of the groundwater budget.

RESPONSE D77-25

The median for Figure 10-1 is actually 4.3 inches.

RESPONSE D77-26

Comment noted. Under Section XXV of the Agreement (page B-58, line 19) and Section V.A., Further Studies, of the Green Book, the vegetation classification and maps may be revised as needed. Also, please see response to comment A4-81 in Letter A-4.

RESPONSE D77-27

The vegetation study referenced in this comment is available for review at the offices of LADWP and the Inyo County Water Department.

RESPONSE D77-28

Please see response D77-13 above.

RESPONSE D77-29

Comment noted. Please refer to response to master comment EA-1 regarding the pre-project description, and Appendix A-1 regarding springs.

RESPONSE D77-30

Please refer to response to master comment PD-12 for a discussion of groundwater mining.

RESPONSE D77-31

For a discussion of the pre-project description, please refer to response to master comment EA-1; and for a discussion of the Jaques report refer to response to master comment VE-5.

RESPONSE D77-32

Please refer to response to master comment VE-3 for a discussion of past and present vegetation analyses.

RESPONSE D77-33

Please refer to response to master comment VE-4 for a discussion of the decrease in ET as described in the USGS Open File Report.

RESPONSE D77-34

Please refer to response to master comment VE-5 regarding the Jaques report and VE-2 for further description of impacts.

RESPONSE D77-35

Please see response D57-12 in Letter D-57. As part of the Shepherd Creek E/M project, an existing irrigation supply ditch was converted into a pipe by the lessee. This pipe was used in 1986.

RESPONSE D77-36

Comment noted.

RESPONSE D77-37

The statement concerning mitigation measure 10-12 in the Draft EIR is correct; however, the mitigation plan is now complete. The remainder of the comment expresses a personal opinion not concurred with by the EIR authors.

RESPONSE D77-38

Please refer to responses to master comments PD-5, AF-2, MT-1 and MT-2 regarding revegetation.

RESPONSE D77-39

Please refer to response to master comment MT-3, mitigation under CEQA. Other responses related to this comment can be found by reviewing the following master comments: PD-5 and WA-4 on the protection of seeps and springs and VE-6 on rare and endangered plant species. Also see Appendix A-1.

RESPONSE D77-40

Please refer to response to master comment WA-4 regarding Reinhackle Spring and PD-5 regarding other springs.

RESPONSE D77-41

Please see response to master comment VE-2 and associated map.

RESPONSE D77-42

Impacts to vegetation in the Laws area are due to a number of factors, including grazing, fire, past agricultural uses, and water spreading activities. It would be difficult, if not impossible, to separate out any of these factors and the associated vegetation response. The expansion of recharge facilities is addressed in Chapter 16, Ancillary Facilities of the Draft EIR.

RESPONSE D77-43

Many of the vegetation changes on these acres in the Laws area occurred before commencement of the project became an issue. As described in response to comment D77-42, other factors are important in the loss of vegetation at Laws. Lowered groundwater levels may have slowed recovery of the area.

RESPONSE D77-44

Please see response to master comment PD-14 for a further discussion of grazing management.

RESPONSE D77-45

For a discussion of mitigation under CEQA please see response to master comment MT-3. For a discussion of the Lower Owens River project please see response to master comment MT-6. Also see response to D77-3 above.

RESPONSE D77-46

Please refer to response to master comment PD-17 for more information regarding the current drought recovery policy. The monitoring program was greatly expanded during the 1991-92 runoff year.

RESPONSE D77-47

Comment noted. Please refer to responses to master comments WL-5 and EA-1, and to Appendix C-3 to this Response to Comments document.

RESPONSE D77-48

Comment noted. You may wish to contact the Great Basin APCD with these concerns.

RESPONSE D77-49

Comment noted. No further response is required.

RESPONSE D77-50

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program. Also please refer to response to master comment PD-17 for a discussion of the drought recovery policy and PD-15 regarding release of Los Angeles-owned lands.

RESPONSE D77-51

Please refer to response B13-57 in Letter B-13; Please refer to response to master comment PD-4 and AF-2 regarding new wells and WA-4 concerning Reinhackle Spring. Also see response to master comment PD-13.

RESPONSE D77-52

Comment noted.

RESPONSE D77-53

Please refer to response to master comment PD-14 regarding grazing management.

RESPONSE D77-54

Please see response D77-2 above.

RESPONSE D77-55

For a discussion of the role of the Green Book and the Agreement, please refer to response to master comment MT-2. The monitoring program was greatly expanded during the 1991-92 runoff year. Please refer to response to master comment PD-17 regarding the drought recovery policy.

RESPONSE D77-56

For more discussion of the pre-project description, please refer to response to master comment EA-1.

RESPONSE D77-57

Please see response C11-8 in Letter C-11 concerning the Technical Group.

RESPONSE D77-58

Please see response B13-30 in Letter B-13 regarding the worst case scenario.

RESPONSE D77-59

This comment expresses an opinion on the merits of the project. Comment noted. Please refer to Green Book Section V.A. The first project identified in this section is the analysis and refinement of the Vegetation Map data base.

RESPONSE D77-60

Comment noted.

RESPONSE D77-61

Please refer to response to master comment PD-12 regarding groundwater mining.

RESPONSE D77-62

Please refer to D77-37 above.

RESPONSE D77-63

Please refer to response to master comment VE-1 for a discussion of vegetation changes allowed by the Agreement.

RESPONSE D77-64

The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Also please refer to response to master comment PD-18. Comment noted.

RESPONSE D77-65

This comment expresses an opinion on the merits of the project. Comment noted.

RESPONSE D77-66

Please refer to response C1-2 in Letter C-1.

RESPONSE D77-67

Comment noted. Please refer to response to master comment PD-6 regarding unilateral well turn on/off, and PD-17 regarding the drought recovery policy.

RESPONSE D77-68

Please refer to responses to master comments PD-4 regarding groundwater levels, PD-17 regarding the drought recovery policy, and AF-2 regarding new wells. Also during the 1991-92 runoff year, the monitoring program has been greatly expanded to better evaluate the impacts of groundwater pumping during the drought.

RESPONSE D77-69

Please refer to the Agreement, Section XIV.C, providing funding to Inyo County for water and environmental activities. The annual funding will be placed in trust by Inyo County and be used only for purposes of operation and maintenance of water and environmentally related activities.

RESPONSE D77-70

Please refer to response to master comment PD-15 for a discussion of the release of City-owned lands.

RESPONSE D77-71

Comment noted, no response required.

RESPONSE D77-72

Comment noted. Please refer to response VE-1 regarding allowable vegetation changes under the Agreement.

RESPONSE D77-73

Please see response D77-59 above.

RESPONSE D77-74

The issues raised in this comment will be addressed. Please see response D22-40 in Letter D22. Please refer to response to master comment PD-6 regarding unilateral well turn on/off, and PD-17 for a discussion of the drought recovery policy.

RESPONSE D77-75

The Technical Group is currently developing better techniques for monitoring of Type D vegetation. As part of this effort, a cooperative study involving Desert Research Institute is being conducted.

RESPONSE D77-76

Please see response to D77-64 above.

RESPONSE D77-77

Please refer to responses to master comments VE-5 regarding aerial photo interpretation; EA-1 regarding pre-project conditions. An analysis of the vegetation transect data is being conducted by the Technical Group and others, and all necessary data has been provided by LADWP.

RESPONSE D77-78

As previously stated, the monitoring program has been expanded. Please refer to response to master comment VE-4 for a discussion of the decline in ET.

RESPONSE D77-79

The inventory requested will be conducted and initial steps have been taken.

RESPONSE D77-80

This comment expresses an opinion. Comment noted.

RESPONSE D77-81

The information requested is available at the Inyo County Water Department.

RESPONSE D77-82

Comment noted. Please see response above concerning revision of vegetation maps.

RESPONSE D77-83 and D77-84

The issues raised in this comment are being and will be evaluated in current and future studies.

RESPONSE D77-85

This comment expresses a personal opinion. Comment noted.

RESPONSE D77-86 and D77-87

Techniques for soil water measurement are currently being evaluated by the Technical Group and others.

RESPONSE D77-88

Please refer to response to master comment PD-12 regarding groundwater mining.

RESPONSE D77-89

Please refer to response to master comment PD-17 regarding the drought recovery policy.

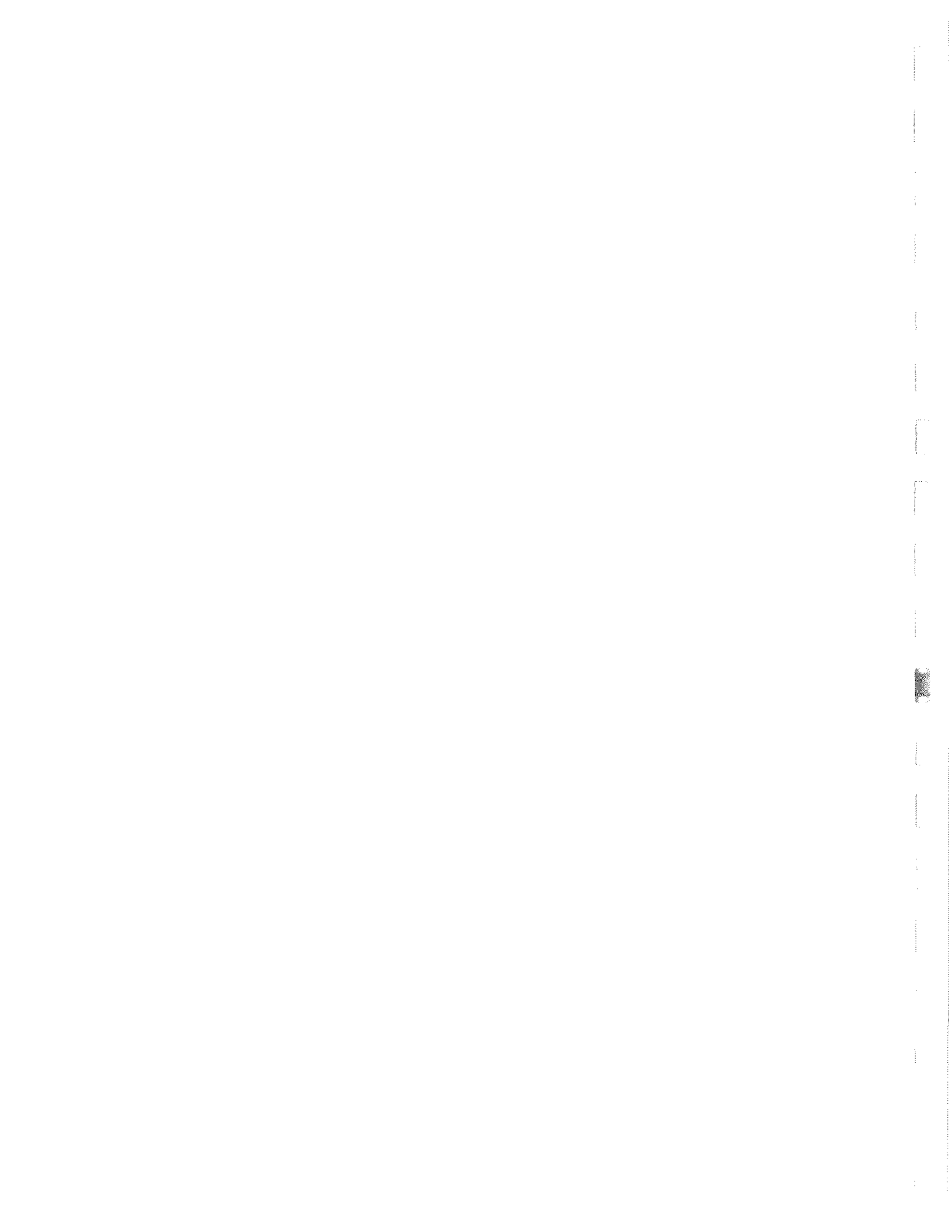
RESPONSE D77-90

Comment noted.



Letter D78

Deanna Johnson-Lauria



Deanna Johnson-Lauria, M.A., M.F.C.C.

STATE LICENSE #MU22986
P.O. BOX 1297 • BISHOP, CALIFORNIA 93515
(619) 872-2341

11/27/91

To whom it may concern,

As a concerned resident of both Inyo & Mono Counties, I would like to make some comments of concern about the recent EIR / long term water agreement:

- 1) In reading the EIR, I find a lack of base line data (on vegetation & wildlife statistics) of 1970. This lack makes it difficult to definitely determine when negative changes occur due to pumping.
 - 2) Who will specifically; how specifically DWP will follow compliance is not clearly stated.
 - 3) The issue of range management appears to be lacking as part of the plan in the EIR.
 - 4) Water for mitigation projects should be provided by surface water not by wells. It has been observed that springs stop flowing or flow less when wells are pumping in the area.
 - 5) There is a lack of a drought recovery plan. Soil needs to be brought up to average moisture standards - not to the moisture level of these past drought years.
 - 6) Alfalfa is considered an inappropriate crop to replace natural vegetation.
- Your attention; consideration would be much appreciated.

Respectfully,
Deanna Johnson



**RESPONSES TO COMMENTS
LETTER D78**

RESPONSE D78-1

Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE D78-2

Please refer to response to master comment PD-7 regarding monitoring under the Green Book.

RESPONSE D78-3

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D78-4

Please refer to response to master comment MT-8 for alternatives to mitigation.

RESPONSE D78-5

Please refer to response to master comment PD-17 regarding the revised drought recovery policy.

RESPONSE D78-6

Please refer to response to master comment VE-1 regarding allowable vegetation changes under the Agreement, and a discussion of alfalfa and its relationship to natural vegetation.



Letter D79

Kathleen Landry

LETTER D-79

JAN 30 1991 Jan 27, 1991

Dear Mr. Davis

I'm writing in regards to the Environmental Impact Report sections 5-6 Management + 11-5 Management Plan. As I understand it the ranchers & farm addresses have not been included in these studies. Why better than ranchers & farmers to speak out on water problems?

I live on Big River & drive to Bishop to work each day.

I've seen how the ranchers manage the water thru the different seasons. They seem to make the most of whatever they have whether it be a dry or wet year.

It seems a bit ridiculous to have people from Los Angeles or even Inyo County who've no knowledge of a working ranch. We see how these people manage the reserves they know in the cities or

Maybe they've read a few books
on management & now they want
to run the ranches. I think
it would be in everyone's best
interest to leave the water
management with the ranchers.
They seem to be doing a very
good job.

Sincerely
Kathleen Landry
PO Box 271
Big Pine, CA 93513
Landers

**RESPONSES TO COMMENTS
LETTER D79**

RESPONSE D79-1

Please refer to response to master comment PD-7 regarding monitoring under the Green Book, and Appendix B-1 for a description of LADWP's grazing management program.

Letter D80

Dan Beets

GENERAL COMMENTS

The utilization of vegetation baseline data compiled from 1984 to 1987 fails to comply with both CEQA and the requirements of the Third Appellate Court to develop a pre-project description (1970). The Court directed DWP to prepare an EIR in 1973 which resulted in two inadequate documents in 1976 and 1979. It appears that a report prepared in June of 1990 for EIP Associates by Ecosat Geobotanical Surveys utilized aerial photo interpretation to compare vegetation changes from 1968 to 1981 at 101 individual sites in various locations throughout the valley, yet other than cursory reference to the study, little of this information has been incorporated into the Draft EIR. Where the Draft EIR identifies some 11,000 acres (approximately 5% of the area under the purview of the agreement) the Ecosat Geobotanical study reveals 68 of the 101 sites (67%) have suffered significant vegetation loss. Moreover, the report concluded 24 (24%) of the sites had complete vegetation loss or were subject to total transformation to lesser water dependent flora. While the report allows that factors other than groundwater depletion may have impacted the sites, the large percentage of sites subject to significant adverse change suggests the impact assessment in the Draft EIR may have greatly understated the effects of groundwater pumping since 1970 and casts serious doubt on the validity of the 1984 to 1987 vegetation inventory as being representative of pre-project conditions. The Ecosat Geobotanical report should at least illuminate the need for more extensive investigation to accurately determine pre-project conditions.

A number of "environmental projects" were implemented by DWP from 1970 to 1984. It is unclear whether the Draft EIR considers them to be "mitigation projects". If they are, then the EIR should specifically identify them as such and describe the environmental impact for which they are mitigating.

Further analysis of Alternative 3 should be presented in the EIR. How is the increase in water export of 5,000 AFY derived? In accordance with Alternative 3 additional wells could be developed (i.e. Lone Pine) in order to increase water export. Alternative 3 projects many benefits to both DWP and Inyo County including the following:

- A) Meets the overall management goal of the Agreement.
- B) Allows DWP to increase groundwater export (5,000AFY) and provides for the installation of additional wells and well fields.
- C) Would eliminate theoretical and untested monitoring and mitigation measures.
- D) Would eliminate the concern of diminished groundwater tables lacking the ability to recharge in sufficient time to sustain resident vegetation communities.
- E) Would eliminate the need for perpetual monitoring and evaluation of soil moisture profiles and vegetation density.
- F) Would eliminate groundwater mining.
- G) Would eliminate the possibility of adverse impacts to private wells.
- H) Would eliminate the ambiguous determination of significant impacts consisting of:
 - a) determining measureability

- b) ascertaining attributability
- c) determining the (redundant) degree of significance
- d) and the additional elimination of the development of theoretical mitigation measures proposed by the Technical Committee.

4
5 The Lower Owens River Project is described as mitigation of a compensatory nature. Why then should Inyo County be responsible for one half of the cost of the pump-back facility at the Keeler Bridge?


6 Given the demonstrated evidence and common acceptance of groundwater levels necessary to maintain categorical species of vegetation dependent upon groundwater subvention (types B,C,D), why does the agreement propose theoretical soil moisture profiles to monitor and sustain such flora when maintenance of groundwater tables at corresponding rooting zones will ensure the survival of these plant communities? If the intent of the project is to maximize groundwater extraction for export based upon estimating the most extreme threshold of plant survival, the EIR should disclose this intent.

7 The conspicuous failure to incorporate any conservation measures to reduce the consumption of water in the City of Los Angeles, in combination with the proposed, as yet, untested and theoretical monitoring methodology and mitigation measures, presents a serious shortcoming in the discussion of alternatives other than Alternative 3 and evades the implementation of any proven methods to avoid significant adverse environmental impacts (i.e., recharge of groundwater tables to all root zones).

In the event Inyo County elects not to participate in the Water Agreement and the City of Los Angeles chooses to proceed with the project to the Third Appellate Court alone, the provisions of Public Resources Code 21081.6 should be included in the EIR. This statute mandates the inclusion of proposed monitoring methodology for both the detection of significant adverse environmental impacts and the subsequent efficacy of any mitigation for any such impacts.

I would appreciate your consideration of the foregoing concerns and anxiously await the response to all comments pertinent to this project.

Sincerely,



Dan Beets
Rte. 1 Box 49
Crowley Lake, California - 93546
Phone (619) 935-4379

COMMENTS ON THE ENVIRONMENTAL IMPACT REPORT
ON THE SECOND AQUEDUCT AND THE GROUNDWATER AGREEMENT

JAN 28 1968

Many of the following comments on the Draft EIR may seem to be nit-picking however the over-all appearance and internal structure of such an important document can reflect on the information contained therein.

The comments are referenced by page and paragraph with the first paragraph not being the first complete paragraph on the page.

Pages i thru v. Table of Contents. It appears that the text and the format of the text were amended extensively without revising the Table of Contents to reflect the changes. Many sections are not reflected within the Table of Contents specifically those sections located on the following pages:

S-9, S-12, S-14, 8-1, 8-2, 8-3, 8-7, 8-11, 8-12, 9-2, 9-3, 9-12, 9-42, 9-45, 9-48, 9-58, 9-84, 10-2, 10-6, 10-23, 10-28, 10-31, 10-49, 10-54, 10-63, 10-71, 11-27, 11-32, 11-36, 12-1, 12-2, 12-10, 12-12, 12-13, 14-2, 14-3, 14-6, 14-7, 15-1, 15-3, 15-4, 15-6, 16-1, 16-4, 16-5, 16-7, 16-14, 16-16, 16-43.

Page iii. Page 9-88 should be 9-87.

Page iv. Section 11.1 should be "Introduction" and the other sections in Chapter 11 be renumbered from 11.2 to 11.5.

Page iv. Page 13-5 should be deleted.

Page iv. Section 16.3 should be "Impacts and Mitigation Measures for Groundwater Recharge Facilities.

Page iv. Section 16.3 should be renumbered to 16.4.

Page iv. Section 16.5 should be added to read "Impacts and Mitigation Measures for New Wells"

Page iv. Section 16.4 should be renumbered to 16.6.

Page iv. Section 16.7 should be added to read "Impacts and Mitigation Measures for Groundwater Pumping on the Bishop Cone".

Page x. Table 14-3 should read "1960 - 1990".

Page S-1. Paragraph 4. "300,000" should read "350,000".

Page S-3. Paragraph 1. "200,000" should read "220,000".

Page S-3. Paragraph 2. Delete "Third District".

Page S-4. Paragraph 2. The County of Inyo will also utilize the EIR in order to determine if the environmental impacts resulting

- from the second aqueduct are adequately addressed. If Inyo County determines that the impacts are adequately addressed then the pending CEQA lawsuit against LADWP would have to be terminated. The determination of the adequacy of the EIR will be made by Inyo County whether or not the Agreement is signed.
- 10 Page S-5. Paragraph 1. "2,600 acres" conflicts with the "2,000 acres" on Page 5-16.
- 11 Page S-5. Paragraph 5. The term "enhancement project" should be deleted from the EIR and all projects deemed to be "enhancement projects" should be eliminated from the EIR. They have no relevance to the EIR unless they are in-fact "mitigation projects" resulting from the impacts associated with the second aqueduct. As an example of the inappropriateness of the term "enhancement project" please refer to the first paragraph on Page S-11 in which measures to mitigate for the adverse effects include enhancement projects. Mitigation requires "mitigation projects" not "enhancement projects".
- 12 Page S-6. Paragraph 1 and 2. If the EIR has been written as if it was prepared by LADWP in 1969 why are the vegetation conditions as of 1984-1987? Also, the Agreement calls for avoidance of significant changes in the vegetation from conditions that existed in 1981-1982. It is confusing when vegetation conditions of 1969; 1981-1982; and 1984-1987 are used. No single vegetation condition base-line is established. Only a pre-project (1969) description would meet the requirements of CEQA. The two previous LADWP draft EIRs were to address the pre-project environment. It is not proper for the two Lead Agencies (Inyo County and LADWP) to agree on something other than the pre-project environment.
- 13 Page S-6. Paragraph 3. The State of California also has a classification of "threatened". The Federal Government only has classifications of endangered and threatened.
- 14 Page S-7. Paragraph 1. Why would not remedial actions also include changes in surface water management practices if that was the reason for the adverse impact to the vegetation?
- 15 Page S-7. Paragraph 5. Are there are actually spreading areas in Big Pine and Laws or are they simply unused canals? When was the last time water was "spread" in the Big Pine area? What is meant by "the construction of improved or enlarged recharge facilities at the existing Big Pine and Laws spreading areas"?
- 16 Page S-8. Paragraph 3. 3rd Sentence doesn't make sense.
- Page S-9. Paragraph 1. Why would not the range of dry year pumping be from zero AFY to 240,000 AFY? Do the in-valley and enhancement/mitigation projects use 70,000 AFY? Figure 4-2 indicates 40,000 AFY in a typical dry year.

Page S-9. Paragraph 5. Re-vegetation of certain areas with native vegetation in order to mitigate the adverse impacts between 1970 to 1990 should not be required by the Agreement (which may not be signed). LADWP should be required to mitigate these adverse impacts through the CEQA process and not through the Agreement.

17

Page S-11. Paragraph 3. Sentences 2 and 3 should be a separate paragraph. They do not belong in this paragraph.

18

Page S-11. Paragraph 4. A research facility has not been proposed by LADWP or the County in either the EIR for the second aqueduct or in the Agreement. What will be Inyo County's obligation toward this facility?

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Page S-12. Paragraph 2. No evidence has ever been provided that LADWP land management activities have prevented uncontrolled urban growth. This statement is an assumption not based upon evidence.

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Page S-13. Paragraph 2. There has never been a grazing management program implemented by LADWP. This section is erroneous. It is suggested that LADWP, in conjunction with BLM, establish a joint program initiating an animal unit month (AUM) study of LADWP lands and manage them accordingly.

Page S-13. Paragraph 3. 2nd and 3rd sentences refer to what? Difficult to see what point is trying to be made.

21

Page S-15. Paragraph 3. Figure S-2 is a matrix which appears to be highly bias and slanted. This matrix is to provide a reader a summary of the advantages and disadvantages of the project. The Y axis of this matrix is a combination of beneficial and adverse impacts and is slanted to direct the reader to the assumption that Alternative 8 (Agreement) is the best alternative.

22

There are only 3 negative impacts vs. 12 positive impacts listed in the matrix. Why not add some of the following "positive impacts" to the Y axis:

- Decreased groundwater pumping.
- Decrease export of water to L.A.
- No adverse impacts resulting from increased groundwater pumping.
- Maintenance of existing flora.
- Maintenance of existing fauna.
- No impacts to rare, threaten or endangered species.
- No increase in pumping on the Bishop Cone
- Continued restricted population growth.

23

Page S-18. Paragraph 1. How can the proposed project increase export from the Owens Valley by only 42,000 AFY when the second aqueduct has a capacity of 220,000 AFY? According to Table S-1, LADWP has increased groundwater pumping from an average of 10,000 AFY to 105,000 AFY.

24

Page S-20. Paragraph 3. One must realize that if another alternative is selected that alternative would also be subject to CEQA review and appropriate mitigation measures adopted. If Alternative 2 is selected then LADWP would, no doubt, mitigate the adverse environmental impacts by a re-vegetation program attempting to re-establish the native vegetation on previously irrigated lands. Except for a major reduction in the agricultural economy of the Owens Valley this could be a desirable alternative. Discontinuing the mitigation projects would not occur if the mitigation is to correct the impacts resulting from water management activities since 1970.

25

Page S-21. Paragraph 4. By agreeing to utilize the status of the vegetation during the years of 1984-1987 disregards any vegetation impacts which occurred from 1970 to 1984. The primary basis of the environmental protection is through the observed and potential changes in the vegetation. Using the status of the Valley's vegetation in 1984-1987 as a base-line does not describe the pre-project conditions but the pre-project condition (1970) plus 14 years.

Page 1-6. Paragraph 3. Same comment as on Page S-4.

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Page 1-8. Paragraph 5. Needs to be re-written. First is second; second is first; three is two; and four is three.

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Page 3-14. "662,200" should read "666,800".

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Page 3-23. Paragraph 1. "600,000" should read "624,000".

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Page 3-27. Paragraph 2. What is the justification to discharge tertiary water into the Los Angeles River? It seems that this water (62,700 AFY) could all be utilized for landscaping or industrial uses.

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Page 4-16. Paragraph 5. What environmental projects were implemented by LADWP between 1970 and 1984? Table 4-3 only shows "enhancement/mitigation projects from 1986 to the present.

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Page 4-21. Table 4-3 should be re-titled "Enhancement/Mitigation Projects Implemented or Committed to Between 1986 and 1990".

32

Page 5-5. Paragraph 2. Why is Type E Vegetation conditions based upon the 1981-82 run-off year while the other vegetation types are based upon the years 1984 - 1987?

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Page 5-5. Paragraph 3. Plants may also be classified as "Threatened" as well as rare and endangered. A definition of "severe stress" is needed.

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Page 5-15. Paragraph 4. Why are the years 1981-82 used? The Pre-project is the year 1970.

Page 5-18. Paragraph 3. 1984 and 1985 should read 1986.

Page 5-19. Table 5-2: Are these new projects since 1970 or continued activities by LADWP? Isn't the County paying for the water by allowing LADWP to pump for export the amount that goes into Diaz Lake?

Where these environmental projects initiated by LADWP on its own or forced to in order to mitigate environmental impacts due to groundwater pumping (ie. Little Blackrock Spring & Seely Spring)?

How can the Klondike Lake environmental project description say "water provided for permanent wildlife habitat area" when the same project is described as "Previously, the lake, located north of Big Pine, had been filled with water only during above-normal water run-off years" (Table 5-3)?

Page 5-20. Table 5-3 should read "1986 to 1990".

Page 5-22. Paragraph 3. Why wouldn't water releases for the Lower Owens River Project be made at the Aqueduct Intake?

Page 6-4. Same comment as on Page S-16 PLUS:

Why wouldn't Alternatives 1, 2 and 4 provide environmental protection similar to the Environmental Goals of the Agreement? It is true that LADWP may pump from pre-1970 constructed wells during dry periods in order to keep the first aqueduct full but during periods of wet years increase groundwater recharge would take place as the first aqueduct and existing storage capacity would be full.

Why would LADWP terminate "LADWP Environmental Projects" under Alternatives 1 and 2? They were implemented without being compelled to do so. Additionally, were any of these projects undertaken PRIOR to the project (pre-1970)?

Why wouldn't LADWP initiate a salt cedar control program under all the alternatives? It is entirely in their interest to control this high water-using species. Elimination of salt cedar in the Owens Valley would have wide-spread community support.

Page 6-6. Paragraph 1. Is it true that there was no groundwater pumping for in-valley uses prior to 1970 such as on irrigated lands?

Page 6-6. Paragraph 2. Why would LADWP be restricted to pump solely from pre-1970 wells and post-1970 replacement wells? LADWP has the water rights and would not be restricted from drilling new wells. Why would LADWP abandon all enhancement/mitigation wells? Wouldn't some of the enhancement/mitigation projects continue in order to mitigate post-1970 environmental damage?

Page 6-6. Paragraph 4. Why would LADWP discontinue all

enhancement/mitigation projects as well as LADWP environmental projects? It seems many would continue in order to mitigate post-1970 environmental damage. In addition, many of the LADWP environmental projects were initiated not as a result of the current Inyo County-LADWP litigation. Would LADWP really let the existing woodlots die? From a PR standpoint I think not.

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Page 6-6. Paragraph 5. It is not clear why LADWP would not operate these wells since all the water ends up in the aqueduct.

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Page 6-6. Paragraph 6. Wouldn't Inyo County or the courts force LADWP to mitigate post-1970 environmental impacts since they were created "illegally" (without CEQA disclosure and mitigation)?

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Page 6-6. Paragraph 9. Why would LADWP be forced to expand irrigated lands back to 21,800 acres. Even without the 2nd Aqueduct couldn't LADWP reduce the amount of irrigated lands in order to provide a more dependable water supply to the 1st Aqueduct and not be subject to CEQA?

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Page 6-7. Paragraphs 2 and 4. Same comments as on Page 6-6, Paragraph 5.

51

Page 6-7. Paragraph 5. In the previous pages of the EIR it is stated that they would be discontinued. Now it is stated that some would not. It is not beyond the scope of the No Project Alternative and should be addressed.

Page 6-8. Paragraph 6. Same comment as on Page 6-6, Paragraph 2.

Page 6-8. Paragraph 9. Same comment as on Page 6-6, Paragraph 4.

Page 6-8. Paragraph 10. Same comment as on Pg. 6-6, Paragraph 5.

Page 6-8. Paragraph 11. Same comment as on Pg. 6-6, Paragraph 6.

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Page 6-9. Paragraph 2 and 3. The listed adverse impacts should be quantified rather than a general statement.

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Page 6-10. Paragraph 8. This indicates that pre-1970 groundwater dependent vegetation conditions are known. Why are 1984-87 and 1981-82 conditions used in the EIR as the "baseline"?

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Page 6-11. Paragraph 1. Cite what studies "suggest" that water tables can decline below the rooting zone for several years with no adverse impact.

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Page 6-14. Paragraph 6. Why wouldn't the salt cedar control program be implemented. Is the program cost effective or not?

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Page 6-36. Paragraph 1. If 100,000 AFY were replaced with SWP water an increase of only 317 million Kwh would be required not 403 million Kwh.

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Page 6-44. Section should read "6.3.8 WATER TRANSFERS"

Page 6.45. Section "6.3.8" should read "6.3.9".

Page 7-4. Section 9-5. Wasn't Goodale Creek put in a pipeline in the early 1980 to provide water to Blackrock Hatchery?

Page 7-6. Section 9-14. LADWP pumping also caused lowering of the water table between Washington Street and the Big Pine Canal killing cottonwood trees and stressing adjacent locust trees (some to death).

Page 7-7. Section 9-16. How can a "significant reductions" in flow of springs, seeps and flowing wells be identified as LS?

Page 7-8. Section 10-3. Wasn't Goodale Creek put in a pipeline in the early 1980 to provide water to Blackrock Hatchery?

Page 7-8. Section 10-5. Riparian area and lake near the 5-Bridges gravel quarry was destroyed.

Page 7-11. Section 10-12. See above comment.

Page 7-11. Section 10-14. Explain how the fish hatcheries are "mitigation of a compensatory nature" for the adverse impacts to the vegetation.

Page 9-12. Paragraph 3. and Page 9-15. Explain "pumping loss in creeks".

Page 9-36. The totals for the years 1966, 1971, 1976, 1980, 1983, 1984 and 1988 are not correct.

Page 9-54. Paragraph 2. The environmental projects by LADWP between 1970 and 1984 are not part of this project unless they were mitigation measures implemented by LADWP for the impacts resulting from increased groundwater pumping.

Page 10-3. Paragraph 3. Should evapotranspiration be evaporation?

Page 10-7. Paragraph 2. Figure 10-3 should be Figures 10-3A and 10-3B.

Page 10-15. Paragraph 4. Figure 10-6 should be Figures 10-6A and 10-6B.

Page 10-31. Paragraph 1. LADWP also constructed dikes south and west of Independence in 1979 or 1980.

Page 10-33. Paragraph 5. Figure 10-8A-L should be Figures 10-8A to L.

Page 10-47. Paragraph 3. Does this mean that vegetative changes which did occur between 1970 and 1984 are to be totally ignored as impacts in the EIR? Approximately 25,000 acres of vegetation

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- 74 have been impacted to some degree from 1970 to 1990. These areas need to be identified and the degree of impact addressed.
- 75 Page 10-50. Paragraph 1. If insufficient information is available then how can one believe that increased flow rates have not resulted in a significant adverse impact? These two sentences appear to be contradictory.
- 76 Page 10-52. Paragraph 3. Were these LADWP environmental projects directly associated with the Project? Were not these ponds in existence prior to 1970? If so, is the figure of 491 additional acres of surface water created still correct?
- 77 Page 10-52. Paragraph 6. Are the dikes south and west of Independence which were constructed in 1978-79 of any value today? They appear to be unusable but are readily visible from Highway 395.
- 78 Page 10-57. Paragraph 1. Why is the 10 foot draw-down figure used? Would not a 5 or a 7 foot draw-down adversely affect some vegetation communities?
- 79 Page 10-57. Paragraph 1. Does this 5% figure (11,000 acres) contradict the 25,000 acres identified by Mr. Griepentrog and Groeneveld in the 4th paragraph of Page 10-46 or is the 11,000 acres only a portion of the 25,000 acres? If so, where are the other 14,000 acres located and what was the cause of the impact to these 14,000 acres?
- 80 Page 10-58. Paragraph 4. Figure 10-8A fails to show the loss of riparian vegetation adjacent to the pond located north of the two wells in the Five bridges area. The pond was dried-up by the wells and adjacent vegetation died. The pond was part of a wildlife area required by Inyo County for an existing aggregate mining operation.
- 81 Additionally, the surface flow from Fish Slough has been declining significantly since the 1930's (60% to 70% reduction). Has this reduction been attributed to groundwater pumping in the Five Bridges/Laws area? What impact to the surface flow from Fish Slough occurred during the period the two Five Bridges wells were in operation?
- 82 Will the Five Bridges pumps be allowed to be re-opened without addressing the impact to the wildlife pond and will water continue to be spread over the 300 acres?
- 83 Page 10-59. Paragraph 2. Figure 10-8F should be Figure 10-8I.
- Page 10-59. Paragraph 2. There has recently been an area of deflation (dust generation area) located primarily in Section 26, T9S., R34E, MDB & M. Since some of this area contains Type B vegetation and is located approximately 2 miles east of LADWP pumps along Hi;Highway 395 (including the two new E/M wells at the end of Steward Lane - one mile away) has it been determined

if these wells have impacted this Type B vegetation resulting in this area of deflation?

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Page 10-59. Paragraph 3. Will mitigation also include maintaining the water table at the "rooting zone" to insure survival of the re-vegetated plants?

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Page 10-59. Paragraph 5. Pages 10-64 should read pages 10-71 to 10-74.

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Page 10-62. Paragraph 1. The CDFG fish hatcheries cannot be considered as a mitigation measure due to impacts from groundwater pumping since 1970. The hatcheries pre-date the Project.

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Page 10-62. Paragraph 5. If the Lower Owens River Project is considered a mitigation project of a compensatory nature one must identify those impacted areas which it is to compensate for.

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Page 10-63. Paragraph 3. Figures 8A-8L should read Figures 10-8A to 10-8L.

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Page 10-64. Paragraph 6. Same comment as Page 10-62. Paragraph 5.

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Page 10-67. Paragraph 4. If the primary cause of the loss or reduction of vegetation is not a result of the Project then please explain the statement that "the observed lowering of the groundwater table to the existing 30 to 35 foot level is well below the root systems of the grass and shrub species, and probably induced the loss of vegetation in each of the areas of concern" so stated on Page 10-66.

91

Page 10-68. Paragraph 2. Identify the possible "surface water management" practices which may have caused the vegetation changes east of Big Pine.

92

Page 10-68. Paragraph 3. Figure 10-8D should read Figure 10-8E.

93

Page 10-68. Paragraph 5. Is 20 acres or 120 acres correct?

94

Page 10-68. Paragraph 5. Figure 10-8D should read Figure 10-8E.

95

Page 10-69. Paragraph 3. If the on-going elimination of the meadow and marsh vegetation between the aqueduct and the Owens River east of the Thibaut-Sawmill Well Field is to be "compensated" by the Lower Owens River Project what will be the future be for the area?

96

Page 12-5. Cite source of the map.

97

Page 13-3. Paragraph 4. KWH/AF should read KWH.

98

Page 13-6. Paragraph 3. The third KWH/AF should read KWH.

99 [Page 14-13. What is the symbol for "Eat & Drink" and for "Home & Bldg"?

Page 14-22. Same comment as above.

100 [Page 16-9. Paragraph 1. There appears to have been a significant reduction of vegetation in the Big Pine spreading area in the last few years. Has this been evaluated? Can it be attributed to the management of the water spreading area?

101 [Page 16-10. Paragraph 1. With the new spreading areas how will they affect areas which will no longer receive the surplus water?

102 [Page 17-13. Paragraph 1. If data regarding the Owens Valley vegetation in 1970 is lacking or not agreed upon how can one state that the vegetation during 1984-1987 was the healthiest since 1970?

**RESPONSES TO COMMENTS
LETTER D80**

RESPONSE D80-1

Please refer to response to comment B13-46 and responses to master comments EA-1 regarding pre-project conditions, VE-3 regarding vegetation impacts, and VE-5 regarding interpretation of aerial photographs.

RESPONSE D80-2

Please refer to response to master comment MT-1 for a discussion of past mitigation projects.

RESPONSE D80-3

Comment noted. Further analysis of Alternative 3 along the lines offered in this comment would not change the results of the alternatives analysis presented in Chapter 6, Alternatives, in the Draft EIR.

RESPONSE D80-4

Please refer to response to master comment MT-6 regarding the Lower Owens River Project, and PD-11 for a discussion of Inyo County's financial participation in the Agreement.

RESPONSE D80-5

Please refer to response to master comment PD-17 regarding drought recovery.

RESPONSE D80-6

Please refer to response to master comment AL-3 regarding water conservation and MT-2 concerning mitigation measures.

RESPONSE D80-7

Comment noted. See response to comment A4-10.

RESPONSE D80-8

Comment noted. No further response is required.

RESPONSE D80-9

Comment noted.

RESPONSE D80-10

The language on page 5-16 of the Draft EIR is correct. The text on page S-5 is appropriately revised and is reflected in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-11

Comment noted. See response to master comment MT-1. The term *enhancement* is retained for use in the Draft EIR because these are specific project elements undertaken jointly by Los Angeles and Inyo County. For more discussion on types of mitigation allowed under CEQA, please refer to response to master comments MT-2, MT-3, and MT-4.

RESPONSE D80-12

Please refer to response to comment B13-46 and response to master comment S-1 for a discussion of different baseline conditions for vegetation that are used in the Draft EIR.

RESPONSE D80-13

Rare or endangered was used here to mean any species of concern or special status species rather than species that occur on State or federal lists.

RESPONSE D80-14

The Agreement and the Green Book recognize the need to manage all water gathering practices, including surface water management practices, to reduce impacts on the environment. See also response to master comment MT-2. Changes in surface water management practices could be a part of a mitigation measure.

RESPONSE D80-15

There are existing spreading areas in both the Laws and Big Pine areas. Water was last spread in Big Pine in 1986. Please refer to the description of new recharge facilities beginning on page 16-1 in Chapter 16, Ancillary Facilities in the Draft EIR.

RESPONSE D80-16

Please see explanation in Section 5.4 beginning on page 5-7 of the Draft EIR. E/M project use is approximately 33,000 AFY.

RESPONSE D80-17

See discussion of Mitigation of Significant Effects - 1970-1990 in response to master comment MT-2. See also response to master comment MT-4.

RESPONSE D80-18

Please see last sentence of second paragraph of page 10-70 of the Draft EIR. LADWP has the financial responsibility for construction of this facility.

RESPONSE D80-19

Comment noted. Since most of the land outside of the towns and reservations in the Owens Valley is owned by the City of Los Angeles, urbanization is very limited.

RESPONSE D80-20

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D80-21

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D80-22

Comment noted, no response required.

RESPONSE D80-23

As explained in Section 6.2, beginning on page 6-5 of the Draft EIR, while groundwater pumping under the project will increase by 100,000 AFY, because of a resulting decrease of spring flow and the addition of E/M and environmental projects, and other factors, annual export is estimated to increase by only 42,000 AFY.

RESPONSE D80-24

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D80-25

The assertion in this comment that the vegetation impact analysis in the Draft EIR disregards the 1970 to 1984 is incorrect. See response to comment B13-46 and response to master comments S-1 and VE-2. For a discussion of the pre-project conditions, please refer to response to master comment EA-1.

RESPONSE D80-26

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-27

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-28

Comment noted. No further response is required.

RESPONSE D80-29

Please refer to response to master comment AL-2.

RESPONSE D80-30

See Table 5-2 in Chapter 5, Proposed Project of the Draft EIR for a listing of environmental projects implemented by LADWP.

RESPONSE D80-31

Table 4-3 in Chapter 4, Water Management in the Owens Valley, in the Draft EIR remains as titled.

RESPONSE D80-32

Please refer to response to master comment S-1 for a discussion of vegetation baseline conditions.

RESPONSE D80-33

The use of the words "rare and endangered" is meant to include all plant species of concern rather than those specifically designated on state or federal lists. The designation "rare and endangered"

includes species on California Native Plant Society Lists 1 through 4 and species referred to in other environmental documents.

Stress is often defined as any environmental factor that restricts growth and reproduction of an organism or population. While severe stress is probably not quantifiable in this situation, it is defined as stress that could cause a significant decrease or change in this vegetation. See response to master comment PD-5.

RESPONSE D80-34

Please refer to response to comment B13-46 and response to master comment S-1 for a discussion of vegetation baseline conditions.

RESPONSE D80-35

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-36

The projects listed in Table 5-2 were instituted between 1970 and 1984. Inyo County pumps water to supply Diaz Lake.

RESPONSE D80-37

Please refer to response to master comment MT-1 regarding environmental projects.

RESPONSE D80-38

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-39

Comment noted. The title is correct.

RESPONSE D80-40

Please refer to Appendix C-2 for a description of the Lower Owens River project.

RESPONSE D80-41

In lieu of the Agreement, the alternatives developed would be at the discretion of Los Angeles. The alternatives presented in Chapter 6, Alternatives to the Proposed Project, in the Draft EIR reflect this fact. As stated in Chapter 6, page 6-5, paragraph 2, the No Project alternative would involve a return to pre-1970 Owens Valley water management practices. Prior to 1970, nearly all of the water exported from the Owens Valley came from surface supplies, springs, and flowing wells. Only during dry years did pumped groundwater contribute significantly to export. The remainder of this comment is noted.

RESPONSE D80-42

See response to D80-41 above.

RESPONSE D80-43

See response to D80-41 above.

RESPONSE D80-44

Yes. The first bullet item on page 6-6 is accurate.

RESPONSE D80-45

See response to D80-41 above.

RESPONSE D80-46

See response to D80-41 above and last paragraph on page 6-7 of the Draft EIR.

RESPONSE D80-47

Operation of wells to supply fish hatcheries would not be consistent with the parameters stated for the No Project Alternative.

RESPONSE D80-48

This comment raises an assertion of legal requirements. It does not itself, raise an environmental issue related to the content of the Draft EIR. The comment is noted; however, the applicability of some legal issues to various activities is an ongoing legal question which may be tested in a number of arenas other than this EIR.

RESPONSE D80-49

Comment noted. See response to D80-41 above.

RESPONSE D80-50

See response to D80-47 above.

RESPONSE D80-51

Page 6-7, paragraph 5 in Chapter 6 of the Draft EIR, correctly points out what mitigation would be required if the No Project Alternative were implemented.

RESPONSE D80-52

The impacts described are general and pertain to the hypothetical conditions described in Alternative 2. Quantification is not warranted or possible.

RESPONSE D80-53

This comment is unclear. Please refer to response to comment B13-46 and response to master comment S-1 for a discussion of baseline vegetation conditions.

RESPONSE D80-54

The statement stated in paragraph 1, page 6-11 in Chapter 6 of the Draft EIR is intended to be general in nature and is appropriately qualified. The source of this information is Chapter 10, page 10-74, item 7.

RESPONSE D80-55

In lieu of the Agreement, implementation of improvements contained in the Agreement, if any, would be at the discretion of Los Angeles. The saltcedar control program has yet to be implemented; thus no data is available as to its cost effectiveness.

RESPONSE D80-56

Comment noted.

RESPONSE D80-57

Comment noted.

RESPONSE D80-58

Comment noted.

RESPONSE D80-59

The pipeline which is the subject of this comment was a California Department of Fish and Game project.

RESPONSE D80-60

The allegation of impact in this comment is unsubstantiated. Comment is noted.

RESPONSE D80-61

See response to master comment WA-1.

RESPONSE D80-62

See response to comment D80-58.

RESPONSE D80-63

See Impact 10-12, Chapter 10, Vegetation, on page 10-58 of the Draft EIR.

RESPONSE D80-64

Please refer to responses to master comments MT-3, MT-6, MT-7 and MT-8.

RESPONSE D80-65

Creeks tend to be areas of groundwater recharge as water percolates from the creek to the groundwater system. On page 9-12, third paragraph, first sentence, "pumping loss" is replaced with "conveyance loss." Also, in Table 9-2 "pumping loss" is replaced with "conveyance loss." Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-66

Comment noted; the correct values should be 29524, 7747, 1466, 2072, 3332, 10038, and 608 for years 1966, 1971, 1976, 1980, 1983, 1984 and 1988, respectively. The report authors regret these errors. Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-67

Please refer to response to master comment MT-1 regarding environmental projects.

RESPONSE D80-68

This is correct. Sentence 2, paragraph 3, page 10-3 is revised to read ". . . salinity occurs because evaporation causes . . ." Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-69

The last sentence of paragraph 2 page 10-7 is revised to read "Figures 10-3A and 10-3B show typical scrub communities of the alluvial fans and valley bottom." Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D80-70

The fourth sentence of paragraph 4, page 10-15 is revised to read "Figures 10-6A and 10-6B show representative riparian and bottomland habitat." Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-71

Comment noted. These dikes were constructed during the pre-project period.

RESPONSE D80-72

The second sentence of paragraph 4, page 10-33 is revised to read "These lands are shown on Figures 10-8A to 10-8L." Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-73

See response to D80-25 above. Also please refer to response to master comment VE-3 for a discussion of the acreage impacted by groundwater pumping.

RESPONSE D80-74

Little is known about the phenomenon of sediment transport in the Owens River. The statement in the Draft EIR that is referenced in this comment reflects the best judgement of LADWP personnel who have been responsible for maintaining the aqueduct system. Sediment transport is identified for future study under the Green Book.

RESPONSE D80-75

The information contained in Chapter 10, Vegetation, page 10-52, paragraph 3 in the Draft EIR is accurate.

RESPONSE D80-76

Yes. The dikes cited in this comment are still of value in LADWP's water spreading program. They have not been utilized, however, in the last five years due to drought. These dikes were constructed during the pre-project period.

RESPONSE D80-77

Please refer to response to Comment D91-7 for a discussion of the 10-foot drawdown contour. The 10-foot contour is a conservative approach to management based on soils and known rooting depths of groundwater-dependent vegetation. Also, see revisions to text of third paragraph of page 10-55 and first and second paragraphs of page 10-57 of the Draft EIR, shown in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-78

Please refer to response to master comment VE-3.

RESPONSE D80-79

Comment noted. The pond referenced in this comment now has water in it -- there have been no significant impacts to vegetation dependent on this pond.

RESPONSE D80-80

There is no evidence to indicate that the flow at Fish Slough has been reduced due to groundwater pumping under the project.

RESPONSE D80-81

The Technical Group has developed a mitigation action plan and schedule for the Five Bridges area; it is attached as Appendix B-5.

RESPONSE D80-82

Comment noted.

RESPONSE D80-83

There is no evidence to indicate that pumping of wells identified in this comment has affected Type B vegetation.

RESPONSE D80-84

Please refer to response to master comment MT-2 regarding mitigation.

RESPONSE D80-85

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-86

The supply of water to the fish hatcheries was increased as a result of the project. See response to comments A4-74 and A4-75, and response to master comment MT-3.

RESPONSE D80-87

Please refer to response to master comment MT-6 regarding Lower Owens River.

RESPONSE D80-88

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-89

Please refer to responses to master comments MT-3 and MT-6 regarding the Lower Owens River Project.

RESPONSE D80-90

Vegetation loss in the Laws area is likely due to several factors, including grazing, fire, past agricultural uses, and water spreading. Groundwater pumping may have added to the impacts to already stressed vegetation and probably slowed or prevented revegetation in this area. It would be difficult to single out one factor as the main cause of vegetation loss, but the other factors appear to predominate as causes in the Laws area.

RESPONSE D80-91

A reduction or elimination of irrigation contributed to vegetation change east of Big Pine.

RESPONSE D80-92

Text correction is noted and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-93

Correct figure is "20 acres".

RESPONSE D80-94

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report. The last sentence of paragraph 3, page 10-68, is changed to read, "These areas are shown on Figure 10-8E."

RESPONSE D80-95

See correction to language of the first paragraph following Mitigation Measure 10-20 on page 10-69, shown in Chapter 3, Revisions to the Agreement and Draft EIR. Areas not subject to direct mitigation will remain in their current condition.

RESPONSE D80-96

The Great Basin Unified Air Pollution Control District is the source of Figure 12-1.

RESPONSE D80-97

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-98

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-99

The diamonds in the Legends of Figures 14-3 and 14-6 pertain to auto-related sales. Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D80-100

There is no evidence that the vegetation described in this comment has declined as a result of water spreading.

RESPONSE D80-101

See second paragraph on page 16-7 of the Draft EIR.

RESPONSE D80-102

See response to comments A4-97 and D77-2.



Letter D81

Bud Cashbaugh, Cashbaugh Ranch

Bud Cashbaugh
Cashbaugh Ranch
601 Sierra Street
Bishop, California 93514

January 28, 1991

EIP Associates
150 Spear Street, Suite 1500
San Francisco, California 94105

Attn: John Davis
Senior Vice President

RE: Draft Environmental Impact
Report for the Owens Valley

Dear Mr. Davis:

I would like to take this opportunity to comment on the Draft Environmental Impact Report (DEIR) prepared by your firm for the Owens Valley. Before I comment on specific areas of the DEIR, I would like to say I support fully the DEIR document and realize the importance of a water management agreement between Inyo County and Los Angeles Department of Water and Power (LADWP).

On page 5-6, the composition of the Inyo County/Los Angeles Technical Group is discussed. It is my concern that at many times this group will be making decisions that will effect grazing (i.e. Five Bridges Mitigation Project), yet the group has no representative from the agricultural community. The Inyo Water Department should be required to have a representative from the Agricultural Commissioner's office or the Farm Advisor involved in any mitigation decisions involving grazing. I would also request the lessee of the affected property be involved in any decision of the Technical Group.

On page 17-6 you list the LADWP Five Point Grazing Management Program. It should be pointed out that this program has been in effect since the second barrel. It is not only something intended to avoid future impacts, but has avoided them for the last 20 years. During that 20 year span, I have worked under this LADWP system and simultaneously under both Bureau of Land Management and the U.S. Forest Service systems and find this system vastly superior in both effectiveness and efficiency.

In short, I support pages 17-5 and 17-6 as written and oppose any changes attempting to make grazing an issue in your document.

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2

EIP Associates
January 28, 1991
Page 2

I hope your final Environmental Impact Report remains closely along the lines of your Draft. Hopefully these comments will help to accomplish the goal needed for all Owens Valley residents - A Water Agreement.

Sincerely,

Bud Cashbaugh

J.W. (Bud) Cashbaugh

**RESPONSES TO COMMENTS
LETTER D81**

RESPONSE D81-1

Please refer to response to master comment PD-7 regarding monitoring under the Green Book.

RESPONSE D81-2

Comment noted. Please refer to Appendix B-1 for an expanded description of the LADWP grazing management program.

Letter D82

Sylvia Colton

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John Davis
Senior Vice President
E.I.P. Associates
150 Spear Street, Ste. 1500
San Francisco, CA 94105

REC'D
JAN 30 1991
EIP ASSOCIATES
SAN FRANCISCO CA
1/28/91

Water from the Owens Valley to supply the second Los Angeles Aqueduct.

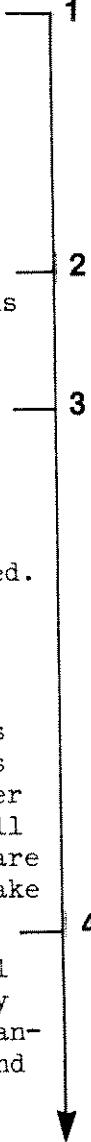
First of all I would like to comment on the "greater" need concept. The City of Los Angeles has been unwilling to limit its population regardless of its inability to meet water, sewage and air quality standards or needs. As the population has grown so has the pressure to continue the fantasy that Southern California is supposed to be a verdant, tropical giant sized putting green. The Colorado River, the Mono Basin and the Owens Valley have been elected to maintain this never quenched thirst. Common sense tells one this is sooner or later unrealistic and unattainable. Greater want is a more honest term.

A major utility such as Los Angeles Dept. of Water and Power should have long ago begun designing and implementing desalinization system for Los Angeles. The frequently heard excuse that the technology is experimental is ludicrous. Israel and Saudi Arabia are employing desalinization on huge scales. If Los Angeles was Lincoln, Nebraska it would be unrealistic but is not. There is an alternative to sucking the Owens Valley dry (or drier) and it lies in a vast blue space west of Los Angeles.

The other alternative to abusive drainage of the Owens Valley is to serious instigation of water rationing and its continued maintenance. Short term restrictions do not change peoples habits, their landscaping schemes or developers fantasies.

I am very concerned with the Dept of Water & Power's continued insistence on being in the beef business. The grazing practices could hardly be called management. The continued impact on already damaged lands has unnecessarily aggravated and desmayed residents and visitors to the Owens Valley. The leasees have continued grazing long after the drought deepened. Numerous and large areas are denuded of various grasses and the soil is eroding away from brush. The churned soils easily blow and contribute to the existing problems of air quality. The grazing is gratuitous and the impact to natural vegetation is long term if not permanent. The banks of the rivers are trashed by broken trees, brush and cow dung because leasees can not be bothered with watering troughs and tanks. Fish Slough contains the last remaining free flowing spring in a unique desert oasis. The upper spring is repeatedly breached by leasees cows and if it does ever rain will be poluted by near by horse corral manure. The desert pupfish sanctuary are nearby Dept of Water & Power as just another pasture and opportunity to make a buck.

The entire valley has been promoted by Dept of Water & power well as local residents as a paradise for walking, fishing and camping. Pleasant Valley is an example here is a beautiful area flanked by volanic bluffs and a meandering river with touted fishing possibilities. But when you get there and



approach the River, the ground is barely covered with stubby grass and liberally dotted with manure piles. This scene is repeated all up and down the valley.

5

I don't think the valley can any longer support domestic grazing, wildlife habitat and the pumping anticipated. The Dept of Water & Power policy of cutting down trees is deplorable. The loss of habitat to birds is obvious. The Dept of Water & Power does not plant and maintain trees. It does promote tree destruction.

6

Another concern of mine is the maintenance of ponds and canals. The ponds are capriciously manipulated regardless of wildlife needs particularly nesting ones. The canals are filled and emptied with no concern for wildlife. When the canals are dragged the mud and vegetation dumped to the sides with no spreading. These piles are very solid and slow to vegetate, long lasting and not a rational aspect of valley terrain.

I have hopes that the integrity of various parties to the agreement will be maintained. I think the Dept of Water & Power could do a lot if they managed these unique and beloved lands with thoughtful and sensitive practices. So far it has been heavy handed, arrogant and environmentally unsound.

Sincerely
Sylvia Colton
P.O. Box 1435
Bishop, CA
93515

Enclosed are some photographs I hoped would better illustrate some of my concerns.

very small cow and even smaller calf. Very poor grazing opportunity. Trying to graze in empty canal.



1/91



1/91

←
Cleanouts of canals heaped in large piles - not conducive to revegetation. Also very ugly. As they breakdown - prone to wind blown redistribution →

Colton S.



Increased alkali areas
results in powdery
airborne PM10's

1/91

S. of Big Pine

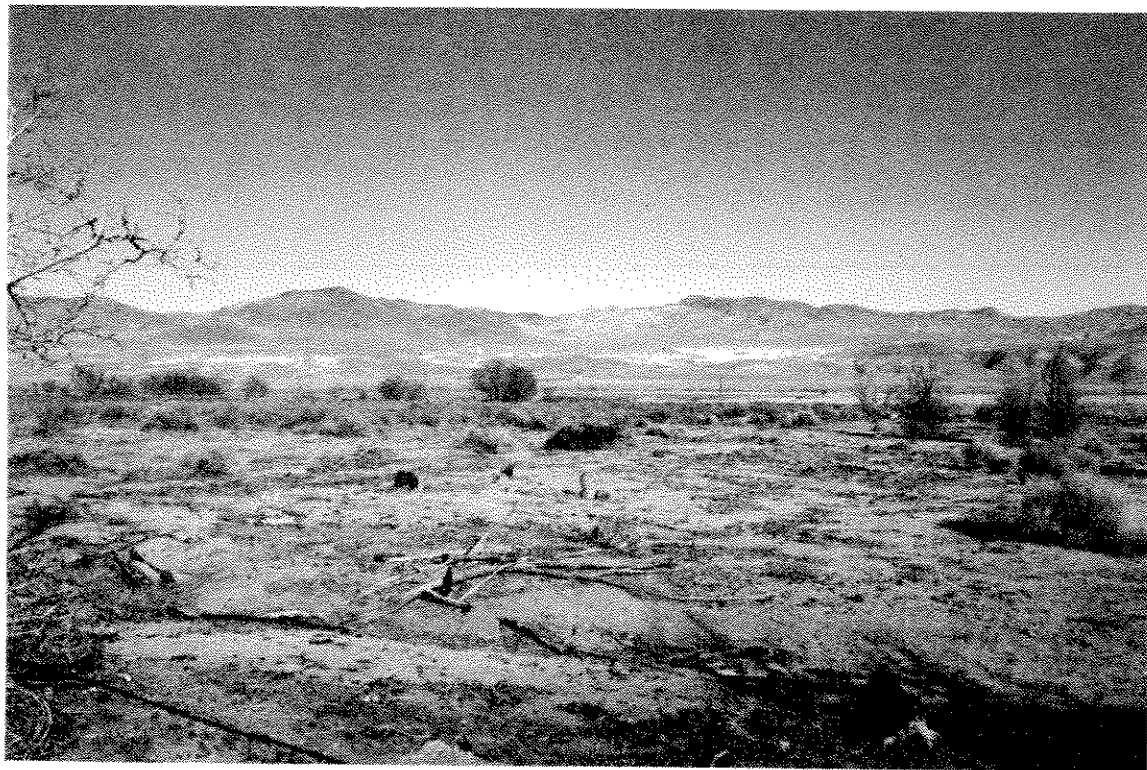
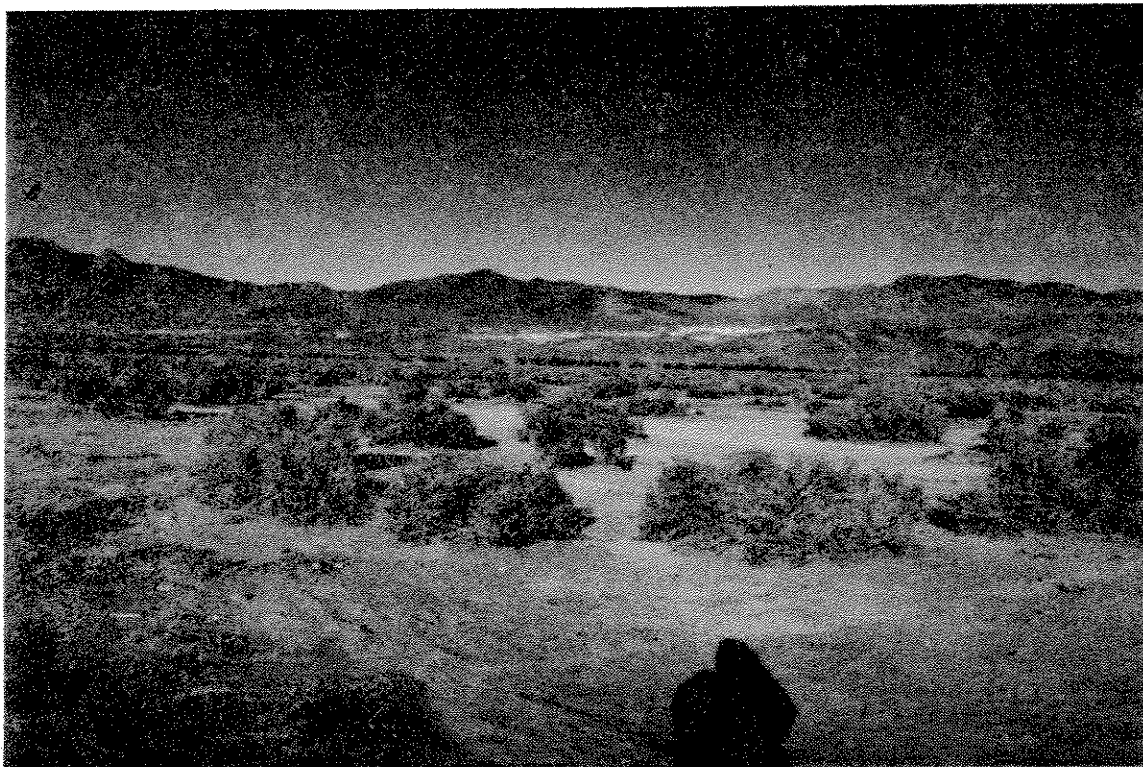


Overgrazing
continued
cattle impacts -
even before
drought.

All photos south &
southeast of Big
Pine.

1/91

Colton, S.

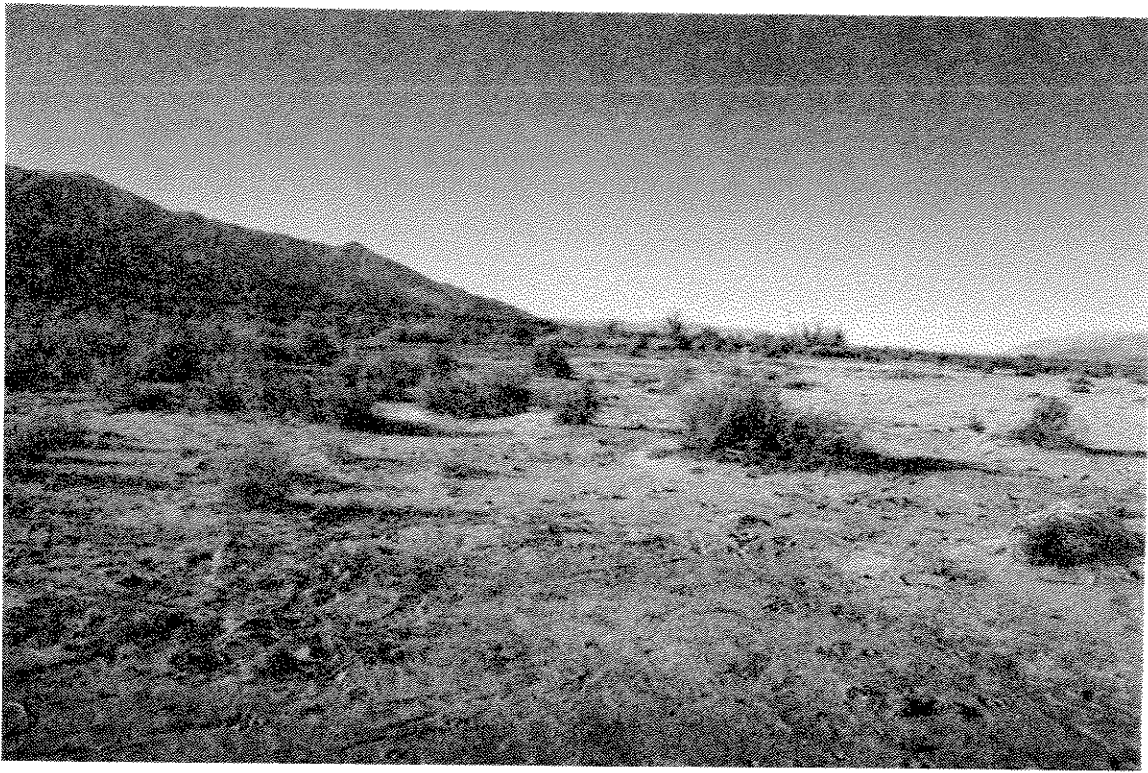


Trees
cut
(loss of
habitat)

Continued
grazing
in obviously
depleted
area

1/91

Colton, A



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Colton, A.



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Colton, S.

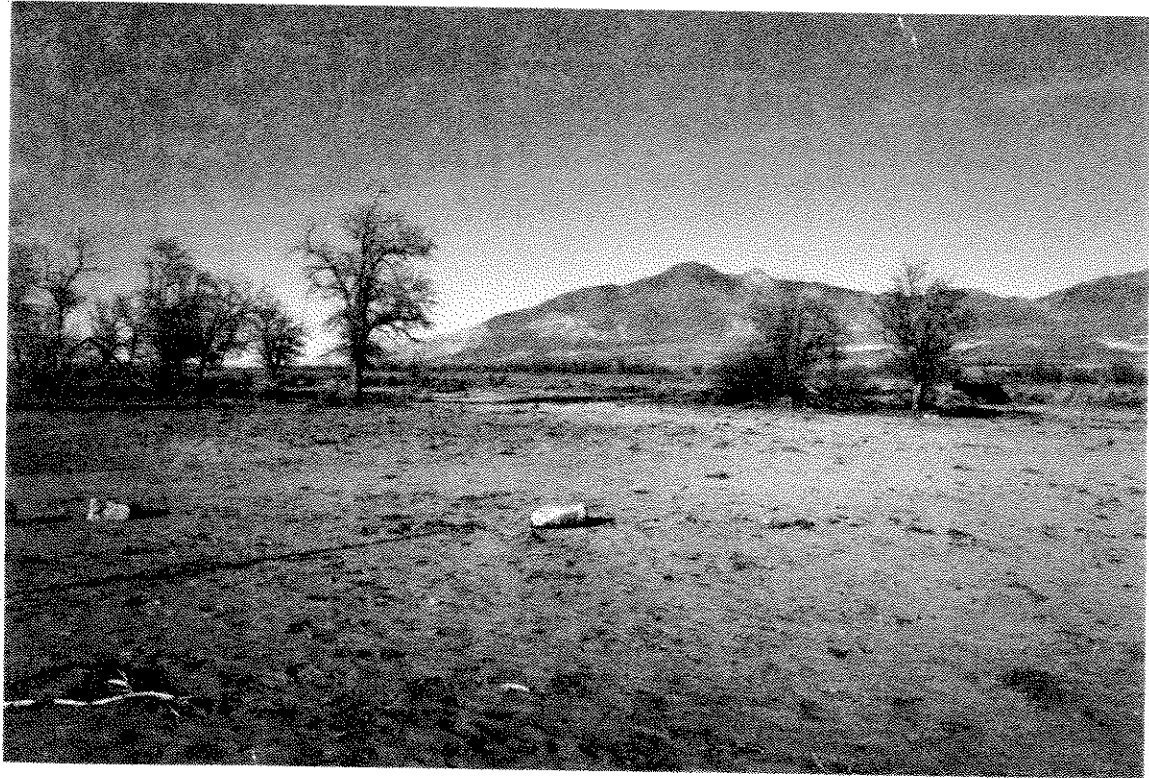


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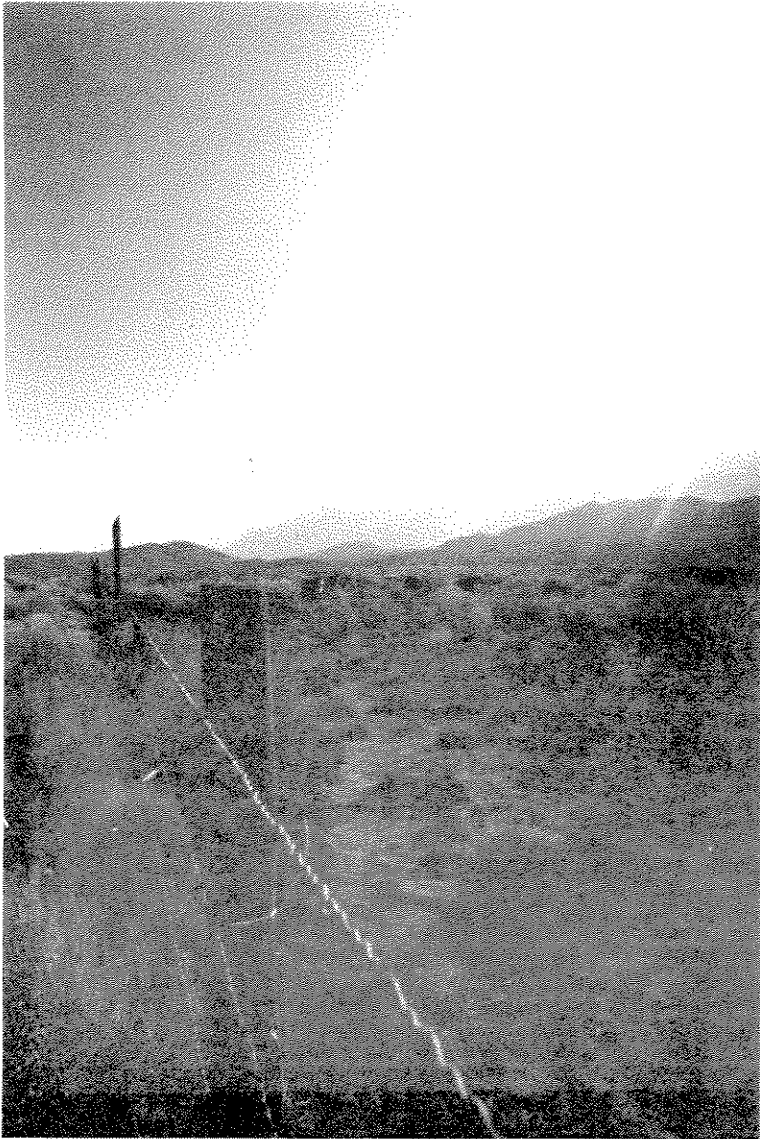
Colton, S.



Colton, S.

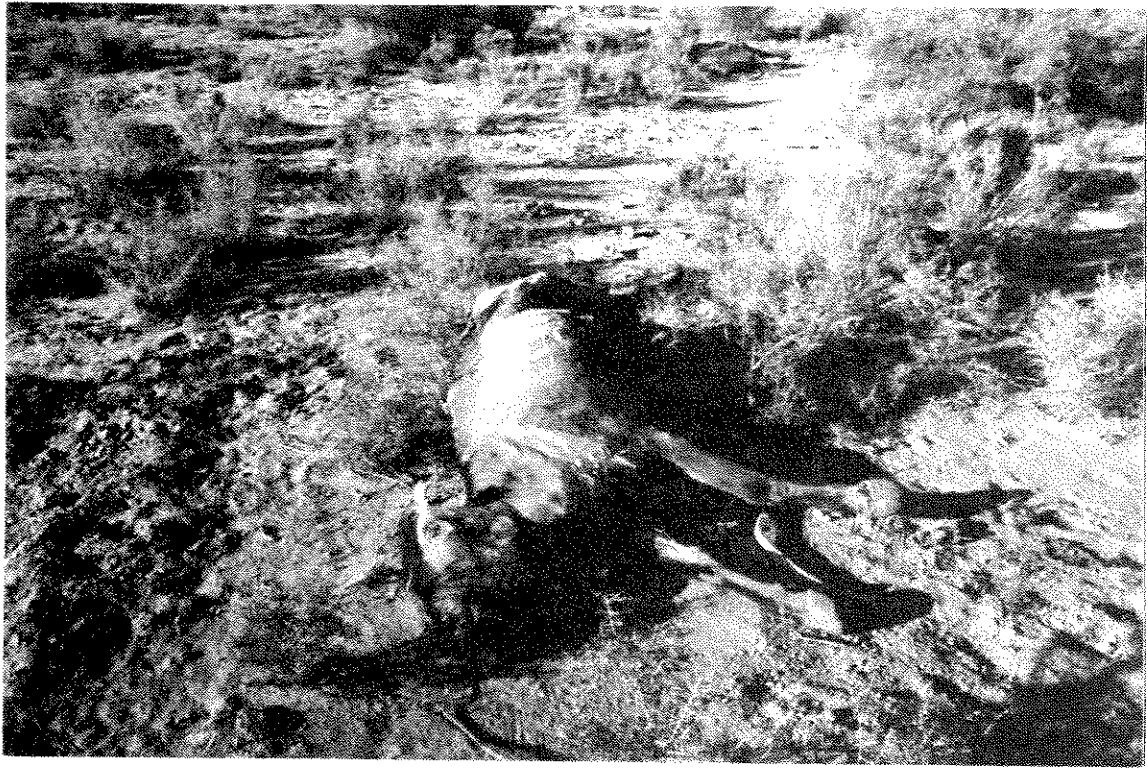


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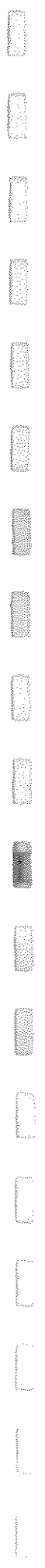
The other inhabitants of this field are represented in the last photo. The erosion evident in this photo is typical of the valley and worsened with every wind storm.



4/91

There were at least 15 more adult cattle
and calves - very dead in this field.
The lack of nutritious vegetation
is obvious.

Colton, S.



**RESPONSES TO COMMENTS
LETTER D82**

RESPONSE D82-1

Please refer to response to master comment AL-2 regarding desalination.

RESPONSE D82-2

Please refer to response to master comment AL-3 regarding water conservation.

RESPONSE D82-3

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D82-4

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D82-5

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D82-6

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.



Letter D83

Lana Johns

January 28, 1991

John Davis
EIP Associates
150 Spear Street, Suite 1500
San Francisco, Ca 94105

Mr. [unclear]
[unclear]
[unclear]

Comments concerning the Draft EIR for the Owens Valley Water Agreement:

I have lived in the Owens Valley since 1974, and have been involved in the family ranching and alfalfa operation of Four J Cattle, headquartered in the Big Pine area. I am in support of the proposed project that is outlined in the draft EIR.

Historically agriculture has been important to the Owens Valley, as well as the entire state of California. Agriculture has shifted in the valley to mainly cattle and alfalfa production, of which I am involved in both. Many people in this valley feel the economic stability of livestock production does not directly affect them. However, the aesthetic quality of the valley they live in is greatly increased because of our irrigation and grazing practices. We are the caretakers of the land for the City of Los Angeles DWP. The pastures are green because we irrigate them. We cooperate with DWP in their vegetative plot studies and the protection of endangered vegetation.

Four J Cattle established and maintains (at their own expense) the alfalfa on the Tuile Elk Field located on U.S. Hwy 395 and Tinnemaha Reservoir as one of LADWP's environmental projects. The alfalfa fields located south of Big Pine are home for the Tinnemaha, Fish Springs, and Goodale Tuile Elk herds. They literally do not leave our fields year round. The hay fields are also home for many migratory and native animals and birds. In addition to providing excellent wildlife habitat, alfalfa also can provide stability to erosive soil that causes dust problems in the area.

We are an integral part of the environment of the Owens Valley. The proposed agreement insures the ranches normal irrigation except in cases of prolonged drought conditions. It also states "conversion of cultivated land from one irrigated use to another would not be considered a sign of vegetative change". This is an important statement for the definition of

changes in vegetation. It is also an important option that must be left open to ranches when they are making economic considerations. In Chapter 17, the agreement supports a continuence of the grazing management program that LADWP has implemented. I am in agreement that this grazing program provides adequate protection for the vegetation of the valley.

Lana Johns

Lana Johns
Star Rt. Box 5
Big Pine, Ca 93513

**RESPONSES TO COMMENTS
LETTER D83**

RESPONSE D83-1

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.



Letter D84

Kathy Noland



DWP EIR

RECEIVED

JAN 30 1991

ANTHONY

Jan 28, 1991

1) The definition of types A, B, C, D, E should be based on what species are actually comprising plant communities on given sites, not what those sites are used for or how they are currently managed. Specifically, type D should include all lands that consist of ~~the~~ native riparian veg. that would normally be dependent on groundwater, natural surface water drainage, or surface water mgt. practices. The native tree-willow/wildrose woodlands on the west side of the earthquake fault in Lone Pine qualify for designation as "D" because they are original vegetation growing on soils of high organic content. Upon diversion of Lone Pine creek & subsequent decline in recharge, they declined somewhat, but were still very well preserved as swamp and willow woodland/native meadow by surface irrigation until 1970 and high groundwater tables until 1970. In fact at this time, numerous springs erupted from ^{along} the fault in areas north of Pangborn, west of Lone Pine City Park (a swamp), west of the Tides grounds, Spainhower Ranch, and ^{DWP} Schou Ranch. These water regimes ^{were adequate} until the effects of the Lone Pine town wells together with less irrigated lands after 1970 took effect. Today, even though these areas receive irrigation water, they are declining due to the dropped water table which once supported them in conjunction with irrigation. These areas also happen to be grazed, but they have the character of much closer to grazed riparian ^D/_E meadow lands along the Owens River in the north ^(D, S) part of the Owens Valley than they do to "agricultural lands", therefore should be classified appropriately.

2) On page 9-64 it states that groundwater pumping caused no

significant impacts on water resources. However, in Lone Pine, pumping of approx. 2.3 cfs by the town wells has caused significant decrease since 1970 to flow at the Spanhower Ranch domestic well. The enclosed well hydrographs derived from DWP records show that the groundwater did not recover in 1969 or subsequent years as it did in other parts of the Owens Valley. This requires mitigation.

3) On page 9-87 it is stated that under the provisions of the Agreement there will be no degradation of water quality. A study & analysis of the potential problem of increase in salinity & radon in private wells ^{in Lone Pine} needs to be included, based on the occurrence of these problems at the Steward Ranch and Anheuser-Busch studies in Olancha/Carstago.

4) On page 9-73, How could lowering ^{the} water table enough to dry up springs not be significant to water resources? What about electricity ^{swells} to pump to hatcheries?

5) On page 10-47 it is stated that there was a significant impact to veg. However it appears that EIP has still underestimated the extent in acres, based on 4 cited studies. Anecdotal evidence should also be included for Lone Pine, since this area has been omitted from some studies & ^{still} lacks information.

6) On page 10-49 EIP states that habitat & species diversity that has been lost must be regarded as permanent. This faulty assumption should be corrected, as it seriously affects the level of responsibility that DWP should be imposed with to restore degraded habitats with water. With the exception of species already extinct, tremendous recoveries in the Owens Valley now can be made to degraded areas

simply with the application of adequate water/groundwater, provided that soils have not yet eroded. However, once a certain threshold toward increased degradation of the whole valley has been crossed, it becomes much more time consuming or perhaps impossible to achieve satisfactory results in selected areas.

7) On p 10-55 it states that "after an extremely wet period from 1982-6, the water table recovered to pre 1970 levels in every well field except Fish Springs, Blackrock & Laws." Lone Pine should be added to this.

8) On p 10-55 it states that mathematical groundwater models have been developed for each well field. Since Lone Pine is a defacto well field & proposed for a new one, it should have been modeled also.

9) The table on page 10-56 indicates that Lone Pine has no veg dependent or affected by a >10' drawdown. There are areas misidentified ^{in LP} & already affected that should be included here.

10) Chapter 10 needs to discuss the impacts of groundwater pumping in Lone Pine had on the effectiveness of post 1970 irrigated lands (type D). Due to a drop in the water table, these lands suffered because 5 acre feet became much less effective. The net result has been a shrinkage of ^{irrigated} riparian/natural pasture-meadow since 1970 (less acreage than shown on maps). (Much of this should be C or D ^{now irrigated})

11) On page 16-35 a new production well is proposed for Lone Pine. The effects of this would be disastrous to natural veg and pasturelands west of the fault due to the confined nature of the aquifer. The nearest groundwater dependent veg is less than 1 mile away (but not identified by the EIR); the well would affect veg. over ~~one~~ one mile away as well. In addition

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This new well would cause groundwater mining in Lone Pine, which is contrary to the Agreement.

12) Page 17-6 describes factors affecting ~~groundwater~~ ^{soil moisture} in Lone Pine not under control of DWP. However, the only significant one was under their control: the reduction of large areas of irrigated lands that were supplying recharge to groundwater & soil moisture.

13) In reference to #1 on page 1 of this letter, the Owens River riparian veg in the S. Owens Valley is classified as E. This is not right. On-the-ground inspection will indicate that the land has never been used for agricultural use (crops) any more than the river bottom in the N. Owens Valley. It is comprised of native ^{riparian} vegetation & should be classified as riparian.

14) In order to reduce impacts to valley wide vegetation:

- a) Water pumped into the aqueduct to prevent freezing during periods that would normally be designated "well turn-off", should be credited to EM water needs in the form of an EM water budget.
- b) Lower Owens River water returning to the aqueduct should be also credited to the EM budget.
- c) water pumped for fish hatcheries should be spread on site or used only for EM
- d) EM wells should be subject to terms set in the Agreement for veg protection. EM water should be taken from any production well that is ~~at~~ complying with terms. EM water needs should receive priority over LA production needs.
- e) Additional mitigation is needed for the damage being caused on DWP lands by off highway vehicle users. An effective plan should be developed & actively enforced by DWP.
- f) Private lands are currently unprotected by the Agreement

against damage to their vegetation. This is a significant need for Lone Pine because the Spunkover Ranch veg is being damaged by the town well & would certainly be affected by any new wells.

- 15) Incorporate by reference the comments presented by the Owens Valley Committee, et. al entitled "Inyo County's Water Future: Critical comments on the EIR & Long-term Water Agreement."
- 16) The ^{economic} effect on ranching should be evaluated of the Agreement more adequately. Under the agreement, vegetation leaf area can decline and still be considered protected as long as soil moisture is adequate under the new, lower levels of required evapotranspiration. This ~~pot~~ level of stress put on the plants will not allow grazing to continue over time, because the cumulative stress will be too much to maintain veg types, & DWP will need to ^(select to) cut way back on cattle stocking first. This will erode the stability of ranching in the Valley seriously.
- 17) An evaluation of the decreased ability of the vegetation under the terms of the agreement to recover after wildfire needs to be presented.
- 18) Springs should be protected for their ~~aesthetic and~~ aquatic values, not only vegetation, in order to preserve biodiversity. Water spreading in ~~the~~ lieu of keeping a spring running is not adequate to achieve preservation of aquatic dependent species should be disclosed.
- 19) Analysis of monitoring results for evaluation of the effectiveness of the agreement in terms of veg. protection should be done or reviewed by an independent 3rd party from the scientific community before the agreement is signed.
- 20) A provision in the alternative served by the agreement should

Call for the development of objectives for water conservation, reclamation, and negotiation for other sources. These objectives along with a program for achieving them (such as controlled growth, education etc.) should be developed jointly by Inyo County and ~~the~~ City of LA. Success in accomplishing these objectives should be tied to the intensity at which water is allowed to be gathered for export by the Agreement (assuming in all cases that reg. 15 protected as per The Agreement)

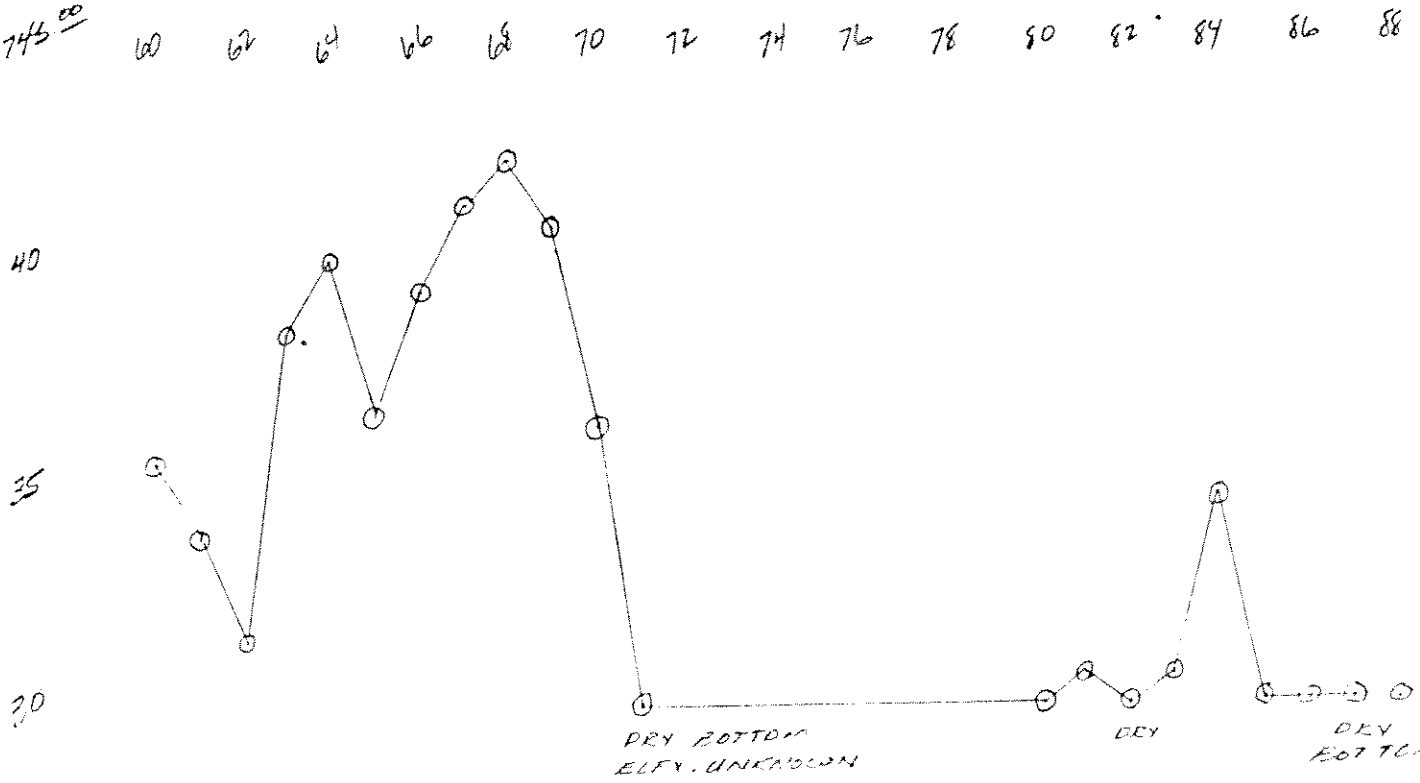
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21) It is certainly ironic that the worst drought in the West is centered in the Owens Valley, ~~and~~ coinciding with the documented desertification occurring ~~in~~ in the Owens Valley. The potential effect ^{of water gathering} for climate should be discussed.

Sincerely,

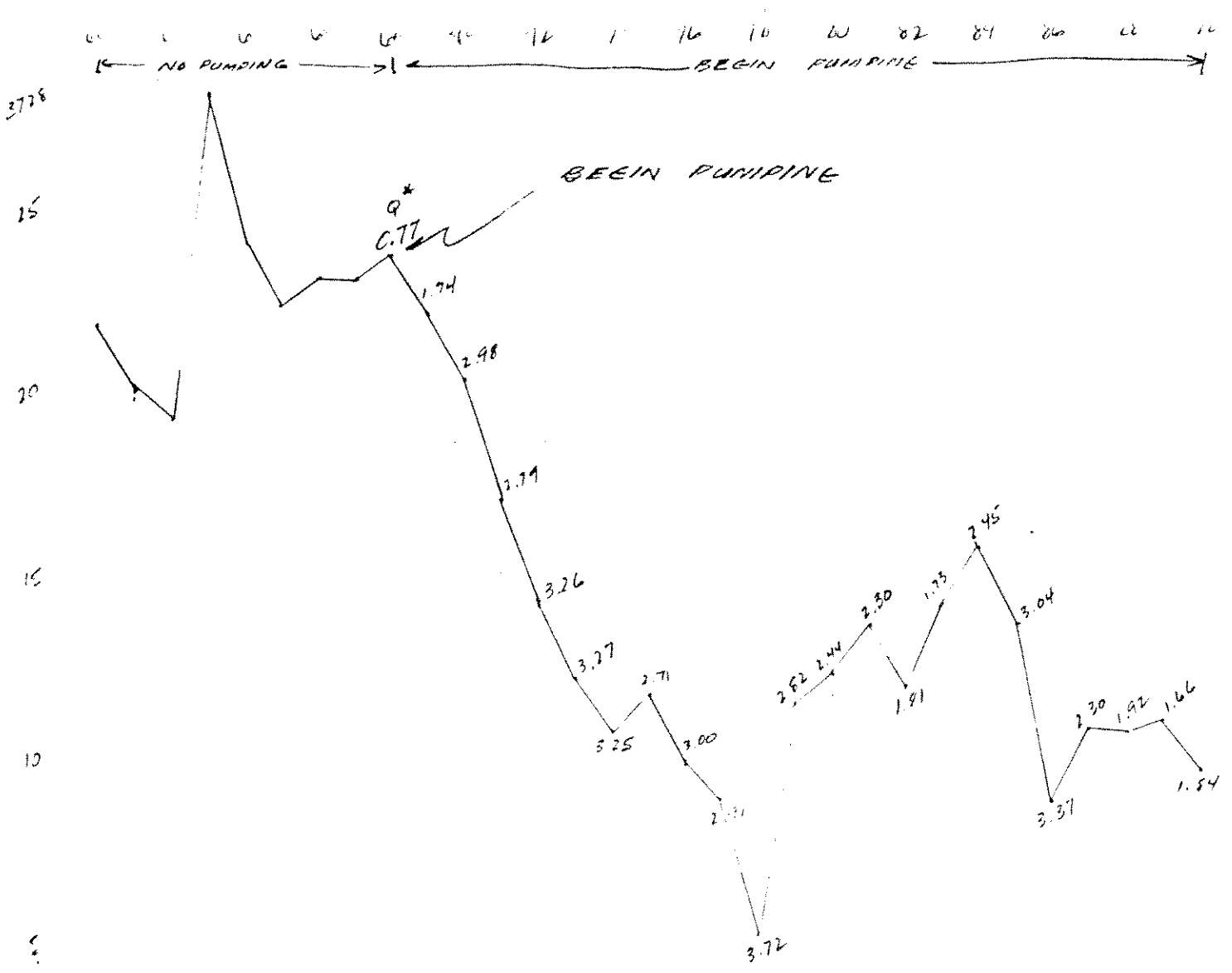
Kathy Noland

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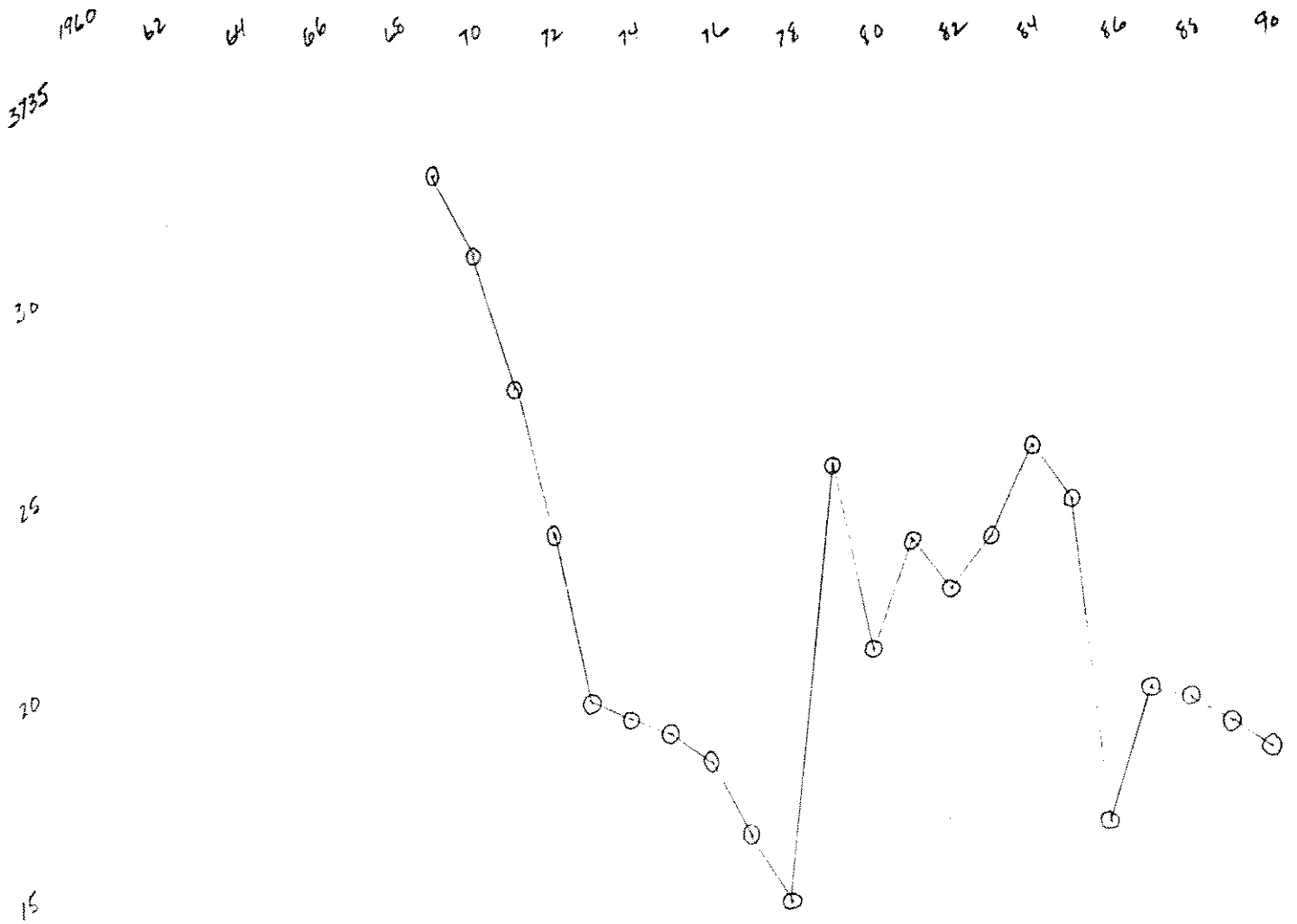
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T.O.C. = 3774.56



K. Nkand

WELL # 256 T.O.L. = 3743.71
 * D = CFS MEAN ANNUAL (1975-80)
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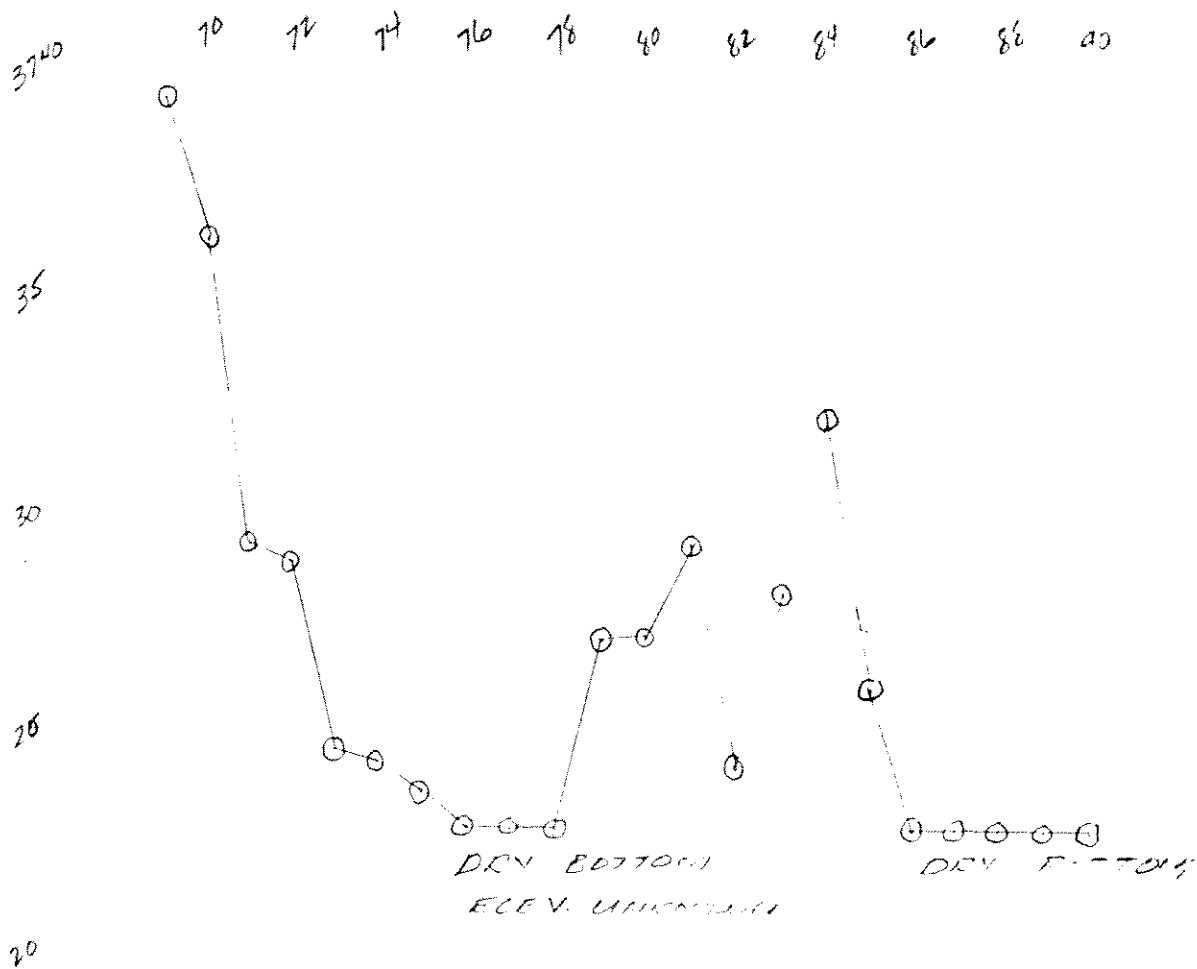
K. Noland



Well # 360 T.H.

T.O.C = 3768.30

NOTE: APPROXIMATELY 60' N.W. OF WELL # 344



WELL # 361 T.S.

NOTE: HATCH 60' SOUTH OF WELL # 361

K. Noland

**RESPONSES TO COMMENTS
LETTER D84**

RESPONSE D84-1

Comment noted.

RESPONSE D84-2

See response to comment D67-4 and response to master comment PD-13 regarding private wells.

RESPONSE D84-3

Comment noted. See response to master comment WA-2.

RESPONSE D84-4

Please refer to response to master comment WA-1 regarding significant effects on water resources.

RESPONSE D84-5

Please refer to response to master comment VE-3.

RESPONSE D84-6

The revegetation of some areas of the Valley would be both difficult and costly. It is not simply a matter of adding water. As can be seen in many places, the addition of water to barren soil often results in an explosion of Russian thistle, an undesirable, weedy plant. For additional discussion of this issue please refer to response to master comment MT-2.

RESPONSE D84-7

Comment noted.

RESPONSE D84-8

Comment noted. See page 16-28 of the Draft EIR.

RESPONSE D84-9

There is no ten-foot drawdown boundary for the Lone Pine area. Recharge to the area far exceeds pumping and drawdown of ten feet or greater is not expected to occur.

RESPONSE D84-10

There is no evidence to indicate that irrigation in the Lone Pine area is less effective because of groundwater pumping.

RESPONSE D84-11

Please refer to responses to master comments AF-2, regarding wells in the Lone Pine area, and PD-4 regarding operation of new wells.

RESPONSE D84-12

Comment noted. No further response is required.

RESPONSE D84-13

The management maps were based on the 1984-87 inventory and reflect conditions at that time. These maps will be updated in the future as more information is gathered by Los Angeles and Inyo County, as provided under the Green Book, Section V.A, page 117. Also see the Agreement, Section XXV, page B-58, line 19.

RESPONSE D84-14

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D84-15

Comment noted. No further response is required.

RESPONSE D84-16

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D84-17

Comment noted. A goal of the Agreement is to avoid impacts attributable to groundwater pumping, including indirect impacts.

RESPONSE D84-18

Please refer to response to master comment PD-5 regarding the protection of remaining springs and seeps under the Agreement.

RESPONSE D84-19

Please refer to response to master comment PD-7 for a discussion of monitoring under the Agreement.

RESPONSE D84-20

Comment noted. Please refer to responses to master comments AL-2 and AL-3 regarding water reclamation and conservation.

RESPONSE D84-21

While the current drought is affecting much of the western U.S., whether the drought is "centered" in the Owens Valley is speculative. The precipitation that falls in the Sierra Nevada results from storms moving east from the Pacific Ocean; the winter storms (or lack thereof) are influenced by large high-pressure systems centered over the Pacific and by the jet stream.

Letter D85



Derik Olson

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LETTER D-85

Derik Olson
Rt 2 Box 14M
Bishop, CA. 93514


John Davis, Senior Vice Pres.
E.I.P. Associates
150 Spear St. Suite 1500
San Francisco, CA. 94105

Jan. 28, 1991

Dear Mr. Davis:

Enclosed are my comments on the draft EIR: Water From the Owens Valley To Supply the Second Los Angeles Aqueduct. The complexity of this document required much more time than I could devote to accurately comment on the contents, consequently my suggestions are brief and the packet is tardy. Please accept my apologies.

Sincerely,



Derik Olson

COMMENTS ON DRAFT E.I.R.

- 1 SUMMARY:
p. s-6: 1st paragraph does not agree with 2nd paragraph. The vegetation inventory of 1984-87 is correct, not 1981-82.
- 2 p. s-6: how is the last sentence, par. 2, connected with the 1981-82 runoff year? In other words, why the use of "thus"?
- 3 p. s-8 (2nd par.): how is the projected figure of 110,000 AF/year of average pumping under the Agreement derived considering that the average pumping from 1970 to 1990 included several extremely high pumping amounts, and no results from studies comparing pumping to environmental effects were available until after 1980? It is apparent that lower than average pumping rates will have to be implemented to uphold the goals of the Agreement.
- 4 p. s-8 and s-9: why is the minimum amount of pumping in a dry year almost twice that of minimum pumping in a wet year, especially when it is stated that a dry year could be preceded by several dry years?
- 5 p. s-12 (par. 2): the last sentence is incorrect in that it assumes uncontrolled urban development would have occurred.
- 6 p. s-12 (par. 4): the Lower Owens River project should not be considered as mitigation for overall impacts of LA's water gathering activities since 1913. It should only be mitigation for itself: the drying up of 50 miles of river.
- 7 p. s-13 (par. 3 - Town Water Systems): how is it known that the amount of water available in the soil to supply vegetation was reduced in the towns of Laws, Independence, and Lone Pine? Please document sources.
- 8 p. s-19 (par. 4): where is it "noted earlier" that CEQA guidelines indicate that an EIR must identify an environmentally superior alternative?
- 9 p. s-20 (par. 1): who is it that believes the mitigation measures will reduce impacts to less than significant and why?

CHAP. 1 - INTRODUCTION

p. 1-1 (par. 2): why is Laws omitted?

CHAP. 3 - WATER SUPPLY FOR LOS ANGELES

p. 3-10 (par. 2): why were water audits and consultations for commercial and industrial users discontinued after 1987?

CHAP. 5 - PROPOSED PROJECT

p. 5-12 (par. 3): the second sentence should be omitted or an estimate should be given using existing data.

p. 5-17 (par. 4): increased surface water diversions could be allocated totally to increased export, but they could not be allocated totally to use in the Owens Valley. This statement should be omitted or re-written.

p. 5-19 (Table 5-2): Seely Spring Environmental Project should be noted as intermittent since the pond is dry periodically.

p. 5-20 (Table 5-3): it should be noted which projects are intermittent, such as Mc Nally Ponds.

CHAP. 7 - SUMMARY OF IMPACTS AND MITIGATION MEASURES

p. 7-23 (line 16-17): how can you state positively that increased pumping on the Bishop Cone will not result in significant impacts to the quality or quantity of water in private wells?

CHAP. 9 - WATER RESOURCES

p.1 (par. 3): the amount of subsurface outflow (as listed in the table on p. 9-80) is not a "small amount". It is 10,000 acre feet. This paragraph needs to be corrected.

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p. 9-3 (par. 2): please include flowing wells.

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p. 9-6 (par. 1): all water that reaches Owens Lake does not always evaporate. There were several high water years between 1924 and 1984 that caused partial filling of the lake.

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p. 9-52 (impact 9-3): in 1989 increased flow in the Lower Owens river was allegedly responsible for killing 200,000 fish. This is a significant impact and must be addressed.

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p. 9-63 & 9-64: a lowered groundwater level and changes in groundwater flow are significant impacts, contrary to your statement that they are not. These impacts result in increased pumping capacity to handle the increase in lift, which means more energy consumption. This should be noted.

22

p. 9-84 (last par.): water quality measurements are based on 1974-1985 tests with no pre-project chemical constituent levels shown. Because of this your Impact 9-18 is incorrectly stated.

23

CHAP 12 - AIR QUALITY

Air quality in the Owens Valley is impacted by areas denuded of vegetation due to fire, to which LADWP is directly or indirectly responsible. This should be addressed.

24

p. 12-9 (par. 3): are the monitoring sites established by GBUAPCD in 1979 the same as those shown on Fig. 12-1 (dated 1988)?

CHAP. 16 - ANCILLARY FACILITIES

p. 16-2 (Fig. 16-1): "Stewart Lane" is spelled "Steward Lane".
(also p. 16-22, Fig. 16-7)

p. 16-3 (Fig. 16-2): where are the 18 trenches and diversion structures described on p. 16-5, par. 3?

p. 16-20 (Fig. 16-6): "South India Ditch" should be "South Indian Ditch".

**RESPONSES TO COMMENTS
LETTER D85**

RESPONSE D85-1

Comment noted. This correction is reflected in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE D85-2

Please see response D85-1.

RESPONSE D85-3

The figure of 110,000 AFY was used for the purposes of comparison and analysis in the Draft EIR. It was not meant to be an absolute projection. Actual groundwater pumping will depend on environmental and hydrologic conditions.

RESPONSE D85-4

In dry years, there is less surface water available to meet demands; thus, a greater reliance on groundwater is necessary. In wet years, less groundwater pumping is necessary and the aquifers have a chance to recharge.

RESPONSE D85-5

Comment noted. No further response is required.

RESPONSE D85-6

The criteria for identifying significant effects are described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Please refer to response to master comment PD-18 regarding the use of the term "significant" in the Agreement. Also, see response to master comment MT-7.

RESPONSE D85-7

See page 17-6 of the Draft EIR, second paragraph.

RESPONSE D85-8

The text referenced was moved to the summary from page 6-46 of the Draft EIR. The EIR authors apologize for the error.

RESPONSE D85-9

The preparers of the Draft EIR made conclusions of significance. It is suggested that the Draft EIR be reviewed for this information. Please refer to response to master comment MT-7.

RESPONSE D85-10

The five towns listed are commonly considered the towns in Owens Valley. The Laws community is included in the area surrounding Bishop.

RESPONSE D85-11

It was discontinued because of lack of public interest and may be recommenced in the future.

RESPONSE D85-12

Comment noted. No further response is required.

RESPONSE D85-13

Comment noted. No further response is required.

RESPONSE D85-14

Comment noted. No further response is required.

RESPONSE D85-15

Please refer to response to comment C13-22 in Letter C-13 concerning the water supply commitment to mitigation measures and response to master comment MT-4 for discussion of the continuation of mitigation projects.

RESPONSE D85-16

Please refer to response to master comment PD-13 and Appendix A-4 for discussions of groundwater pumping on the Bishop Cone.

RESPONSE D85-17

Considering that the Valley has an average inflow of surface water of over 550,000 AF, the 10,000 AF subsurface outflow constitutes a relatively small portion of the overall water budget. The statement is accurate and is retained.

RESPONSE D85-18

Flowing wells are addressed in the discussion of the groundwater system.

RESPONSE D85-19

Because no water flows from Owens Lake to the Pacific Ocean, waters that pond in the lake bed ultimately evaporate.

RESPONSE D85-20

The incident described was a result of a storm event and unrelated to water management activities of Los Angeles. As such, it is not relevant to practices evaluated in the Draft EIR.

RESPONSE D85-21

The issue of significant effects to water resources is discussed in response to master comment WA-1; energy impacts are addressed in master comment EN-1.

RESPONSE D85-22

Very little water quality data is available for the pre-1970 period. Thus, the trends in water quality that were determined by the USGS during the 1974-85 sampling were used because these data were the best available. Impact 9-18 in Chapter 9 of the Draft EIR is correctly stated.

RESPONSE D85-23

Air quality impacts are addressed in Chapter 12 of the Draft EIR, and in response to master comment AQ-1.

RESPONSE D85-24

As stated on page 16-5 of the Draft EIR, Figure 16-2 shows the general location of the 18 proposed trenches. Specific locations within the area will be determined prior to construction.

Letter D86

Pat Roberts

January 28, 1991

John Davis, Senior Vice President
EIP Associates
150 Spear St., Suite 1500
San Francisco, CA 94105

Dear Mr. Davis,

I would like to take this opportunity to submit comments on the DEIR and proposed agreement.

The monumental ecological and environmental disaster that the City of Los Angeles Dept. of Water and Power has caused in the Owens Valley in the last seventy years is not only well documented, but known world-wide. "Look what happened to the Owens Valley" is cited in every water project being proposed in the west. The DWP would like to dispel their bad image as they spread their tentacles into the Northwest and Canada, and have spent millions of dollars buying hydrologic, geologic, and botanical studies, and other "expert" data to prove that damage to the Owens Valley has been "minimal", "insignificant", and "blame it on the drought"! How are we expected to take a new agreement seriously when they try to perpetuate the big lie? If they really wanted to act in good faith, they would be working on conservation, desalinization, and buying more water from MWD to allow our valley to recover. They have shown a blatant disregard for CEQA, and all of the state and federal environmental laws, and proven their intention to continue just what they are doing now, which is pumping us dry! At a water meeting last year, Jim Wickser, second in command of the water division, answered the question of desalinization unequivocally. "Not in our lifetime!" In other words, not as long as we can drain the Owens Valley!

The infamous "Green Book", ten years in the making, while the excessive pumping continued, is a scientific stress test on the vegetation of the Owens Valley.. to see how little moisture a plant, or entire area can survive on...because increased water must be sent south for the unlimited growth of the IA basin! If the vegetation dies in certain areas, well, too bad; it is then put in another category but nobody is held responsible...and if Salt Cedar starts to grow in that area, replacing the former vegetation, that must be eradicated! Leave a windbreak? Shade? Shelter for animals or birds? No way, it has to go! In southern Inyo, the creeks are gone, the river is gone, the trees are dead, the ground has turned to dust. Most of the birds and animals have disappeared. The Owens Lake dust is recognized as a serious health threat, but, as in the Mono Lake case, now being tried in El Dorado County, DWP's attorney stated to the court that they didn't need to address the dust problem in the Eastern Sierra because the area is "virtually uninhabited" They plan to make it that way!

It is time to rescue this once magnificent valley before it all becomes another Death Valley. The already existing Groundwater Ordinance, endorsed by seventy six percent of the voters, which gives Inyo County the power to fairly and justly control the groundwater for the benefit of all, could be implemented immediately. To say that we would have to start all over again is patently false. The EIR that accompanied the ordinance would have to be brought up to date. All the data we need is already on record. It certainly looks to me like our last, best hope!

Sincerely,

Pat Roberts

Pat Roberts
P.O. Box 576
Lone Pine, CA 93545



**RESPONSES TO COMMENTS
LETTER D86**

RESPONSE D86-1

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.



Letter D87

John K. Smith

LETTER D-87

John K. Smith
700 North Edwards
P.O. Box 83
Independence, California 93526
619.878.2006

John Davis, Senior Vice President
EIP Associates
150 Spear Street, Suite 1500
San Francisco, California 94105

January 28, 1991

Dear Mr. Davis:

The Water Management Agreement and Environmental Impact Report (E.I.R.) are of great personal concern to me as I was the County Administrator at the time the Law Suit was filed against the City to require the E.I.R. on the City's second aqueduct and groundwater pumping. I was a member of the joint committee of the City and County, working on ways to resolve the Law Suit until my retirement in 1981. I have followed the development of the present proposed agreement and E.I.R., both represent a tremendous step toward solving the age old water dispute between Inyo County residents and the City of Los Angeles Department of Water and Power.

Necessary changes with proposed Water Agreement and Draft E.I.R., as I see them, are as follows:

1. Title of the project should be changed to read:

Water Resources Management Plan to guarantee adequate water for the Owens River Valley environment and to supply water to the City of Los Angeles.

As you know, the present title only addresses "Water from the Owens Valley to supply the second Los Angeles Aqueduct 1970-1990, 1990 onward pursuant to a long term Groundwater Management Plan."

2. The present Water Agreement states the annual operations plan and pumping program shall be submitted to the Inyo County Technical Group. The Technical Group shall review the proposed plans and provide comments. The Department shall meet with the County's Technical Group and attempt to resolve concerns. The Department shall determine appropriate revisions to the plan, provide them to the county and then implement the plan.

It is quite obvious that the City has virtual unilateral authority in developing and implementing the annual operations plan with the County Technical Group having only comment and discussion impact. This operations plan should be agreed to by the County Board of Supervisors before implemented.

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3. The town water systems prior to 1976 were providing water to the residents of each town in excess of 1000 acre feet per year. This amount of water made it possible for residents to enjoy green lawns, gardens and trees. Since 1976 the addition of water meters and excessive water rates has delt a devastating blow to our communities. We should be allowed to return to a minimum of 1000 acre feet of water per year without charge from Department for both Independence and Big Pine, 2000 acre feet for Lone Pine and 100 acre feet for the town of Laws.

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4. Land Management projects should protect the vegetation of the Owens Valley from effects of groundwater pumping, changes in surface water management practices, other water management activities and grazing management.

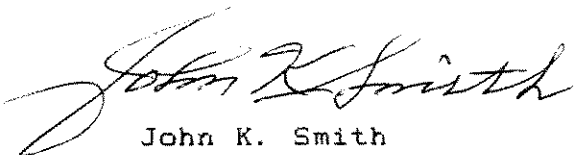
Water management activities such as spreading water over the valley floor on grazing lands is a tremendous value to the environment of the valley. This irrigation activity on the grazing and farm lands of the valley provides aesthetic beauty to the valley, as well as, providing plant life necessary for a healthy habitat for wildlife, both animal and fowl. These irrigation practices are carried out by the ranchers and farmers of the valley on City lands and without these activities the grazing lands and alfalfa fields would soon turn to barren fields with only brush and sand.

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The Agreement and E.I.R. should address water and land management as related to ranching and farming to insure this activity for the preservation of our present agricultural environment and in turn, provide a healthy habitat for our wildlife and strengthen the economy of our county.

Thank you for this opportunity to comment and your kind attention.

Sincerely yours,



John K. Smith

JKS:ps

RESPONSES TO COMMENTS LETTER D87

RESPONSE D87-1

Please see Chapter 1, page 1-4, of the Draft EIR for a description of the project under review. This comment expresses a personal opinion unrelated to the content of the Draft EIR.

RESPONSE D87-2

Section V.D (page B-27) of the Agreement provides that LADWP will develop an annual operations and pumping program and submit it to the members of the Inyo County Technical Group for review and comment. The program must be consistent with the goals and principles of the Agreement and of the Green Book. Should Inyo County believe that the programs submitted are not consistent with these goals and principles, the plan may be submitted to dispute resolution. See Section XXVI.A.10. (page B-59) of the Agreement.

Concerning the key role that Inyo County will play in achieving the goals and principles of the Agreement, see the summary on page 10-71 of the Draft EIR. The content of the annual operations and pumping program will be a result of joint monitoring, data analysis, management, mitigation, and other activities described in this summary, and described in more detail in the Agreement, Green Book, and in the Drought Recovery Policy (see response to master comment PD-17).

RESPONSE D87-3

Comment noted. Under the Agreement, the towns are not precluded from using water in excess of these amounts; however, the actual incremental costs of supplying water in excess of these amounts must be paid.

RESPONSE D87-4

Please see Section I.A (page 1) of the Green Book concerning management goals and Section IV.A (page B-20, beginning on line 20) of the Agreement concerning the preservation of ranching and farming. Please refer to response to master comment PD-14 regarding grazing management; and S-1 regarding vegetation baseline conditions.

RESPONSE D87-5

Please see response D87-4 above.

Letter D88

Jim J. Tatum, Tatum Cattle and Hay Co.

11



Jim J. Tatum
Tatum Cattle and Hay Co.
1009 East Line Street
Bishop, California 93514

January 28, 1991

EIP Associates
150 Spear Street, Suite 1500
San Francisco, CA 94105

Attn: John Davis
Senior Vice President

Subject: Draft Environmental Impact Report for the Water Agreement Between Los Angeles Department of Water and Power and the County of Inyo

Dear Mr. Davis:

The following comments are concerning the Draft Environmental Impact Report (DEIR) prepared jointly by yourselves, Inyo County and the Los Angeles Department of Water and Power (LADWP).

Before our comments are presented, I feel it necessary to give a brief history of the Tatum Family in the Owens Valley. We have been involved in numerous agricultural operations in the area since the early 1900's, both pre and post LADWP. Our current lease holdings are located on the "Bishop Cone" area of the Owens Valley.

The first area we wish to address is the proposed 15 new wells, specifically, the wells located on the "Bishop Cone". This matter is discussed in Section 5, Page 15, Section 16.3, Page 14, and Section 16.4, Page 41. With the supply system currently in place, it is impossible for adequate supplies of water to be provided to lessees, regardless of the amount of precipitation. In nearly all cases, water delivered to lessees for agricultural use must first travel through a maze of housing developments, under-sized culverts, and an inconceivable number of bottlenecks. The ditches located on private property are in many instances not of adequate size to handle the volume of water required for agriculture. The diversion of water around these properties while still providing adequate water for trout ponds

was proposed and met with adamant objection. For these reasons, we feel it imperative that the proposed wells be constructed to provide water for the "Bishop Cone", as allowed in the "Hillside Decree" of 1940.

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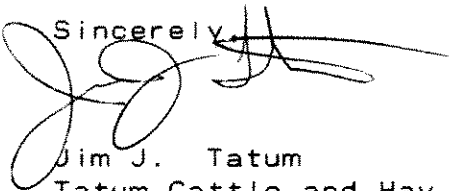
Our next area of concern is the issue of grazing. In Section 17, Page 5, the document states that grazing management is not part of the proposed project. This is how it should remain. In the late 1970's, there was a Five Point Grazing Plan implemented by the LADWP and the lessees. As referred to in Section 17, Page 6, after several years of practical use, this plan has been very successful. The majority of lease holdings in this valley have been in the same families for decades. This longevity has basically guaranteed proper management. It would be extremely counter-productive to mismanage these lands because the end result would be ruination of a ranch. According to County-kept records, there has been a direct correlation between the amount of precipitation and the number of cattle in the Valley. A unique situation exists in the Owens Valley... a majority of the cattle are moved to summer ranges located at the higher elevations, which allows for "resting" of the ground and the maturation of native plant life. This maturation insures the continual propagation of these plants through a consumption, spreading and incorporation process involved with grazing. The current grazing plan allows for the conversion of a highly renewable resource into a readily marketable commodity that produces substantial revenues, most of which enters the local economy, at no cost to the tax payer, unlike similar plans implemented by the U.S. Forest Service and the Bureau of Land Management. This system is controlled by highly qualified individuals whose very life style depends upon the proper management and protection of the Owens Valley eco-system.

3

Also, I would like to have someone from the University of California Cooperative Extension, Farm Advisors office or the County Agricultural Commissioner's office as part of the technical group which currently consists of LADWP and County Water Department employees only.

In closing, it should be stated that we are very much in favor of the Water Agreement and the DEIR. We are convinced that it provides the Valley with the most stable and predictable future possible.

Sincerely,



Jim J. Tatum
Tatum Cattle and Hay Co.

**RESPONSES TO COMMENTS
LETTER D88**

RESPONSE D88-1

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE D88-2

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D88-3

Please refer to response to master comment PD-7 for a discussion of monitoring under the Green Book.



Letter D89

Stanley J. Trizinsky

Mr. John A. Davis P.E.
Senior Vice President
EIP Associates
150 Spear Street, Suite 1500
San Francisco, Ca. 94105

RECEIVED
FEB 4 1991
S.A. [unclear]

Re: Inyo County-Owens Valley PEIR

Subject: AIR QUALITY

The PEIR seems to dedicate much information on the technical and political reasons why the Owens Valley has water and air problems. The alluvial fan, groundwater storage and vegetation data is interesting. However, only a very small section of the report contains detailed information on air quality. This section is the most important of the report, yet has only 13 pages of description.

The end result of Owens Valley groundwater pumping and river dispersions is dry surface soil and air pollution. The PM₁₀ standard is the highest measured in the United States. This standard is exceeded, mostly due to the Owens Valley Dry Lake.


The air quality section, (page 12-8) of the PEIR, states that the PM₁₀ problem is outside the scope of the document. This statement avoids the reality of the situation. The purpose of the PEIR is to restore and maintain the natural resources of the Owens Valley. The Owens Dry Lake is the problem, concerning air quality, and should be corrected.

The Water Reporter dated January 25, 1991, states that the cost of a small water sprinkler system on the Owens Dry Lake is approximately \$100 million. The cost of evaporation of the Owens Lake, if filled, is estimated to be \$100 million per year. These costs indicate that it is more practical to fill the Owens Dry Lake with water. The initial cost can be amortized over many years. Hence, the more practical approach to the PM₁₀ problem is to initiate the replenishment of the the Owens Lake.

A small increase could provide many advantages:

1. Reduce PM₁₀ levels at a moderate expense.
2. Increases in relative humidity might create additional precipitation.
3. Recreation and domestic facilities would provide much more than the initial cost of the Owens Lake water.

Respectfully submitted:


Stanley J. Trizinsky
P.O. Box 276
Independence, Ca. 93526
(619) 878-2011

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**RESPONSES TO COMMENTS
LETTER D89**

RESPONSE D89-1

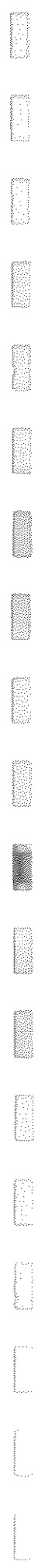
Please refer to response to master comment AQ-1 regarding air quality.

RESPONSE D89-2

Please refer to responses to master comments PD-3 and AQ-1 for a discussion of Owens Dry Lake.

RESPONSE D89-3

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.



Letter D90

Richard Potashin



Dear Sirs:

RECEIVED

JAN 29 1991

TEP ASSOCIATES
SAN FRANCISCO, CA.

Thank you for the opportunity to comment on your draft EIR. I have a number of concerns regarding the document you which I will spell out to you:

1) I don't believe Inyo County should incur the cost, half of it for the Lower Owens River Project. DWP's water gathering activities created the damage, not the county. They should take full responsibility for the project.

2) The Lower Owens River Project should not be used as a mitigation cure-all for riparian/spring areas debilitated by DWP's groundwater activities. I believe additional mitigations are necessary. The Lower Owens River Project is a mitigation for itself and nothing more.

3) I urge you to preserve Rheinback Spring, in its present state.

and keep pumping down to protect these areas)

4) I found the grazing element woefully inadequate. You should spell out, the grazing program, in more detail, and document or inventory the most damaged areas. I would also like to see a more extensive discussion about the synergistic relationship between grazing and ~~the~~ pumping in sensitive riparian and meadow areas. I think grazing should be taken into your mitigation and revegetation efforts. Also look at this in relation to your vegetation monitoring program. I urge you to adapt a comprehensive grazing management program along the lines of the BILM & USFS Programs

5) I believe the water gathering activities of DWP in the Mono Basin and Long Valley should be examined in this EIR.

The double-barreling of the aqueduct (the project) extended up to the Mono Basin - what goes on up there affects aqueduct operations all the way down the line, and also affects pumping levels. Also, better discussion of uncertainties of Mono Basin supply and how that affects our situation

6. I would like to see a more detailed discussion of water conservation in the Owens Valley, How the DWP can conserve in-valley uses

7. A program for managing the rare, endangered, and threatened species on DWP lands needs to be spelled out further. How will this agreement impact those species

8. The E.F.R. needs a more detailed discussion of revegetation and its reliability and feasibility as a mitigation tool. What if revegetation

is a failure

Sincerely

Richard Potashin

RICHARD POTASHIN
STAR RT 4 - BOX 14-B
BLSHOP, CA 93514

**RESPONSES TO COMMENTS
LETTER D90**

RESPONSE D90-1

Please refer to response to master comment PD-11 for discussion of Inyo County's financial participation in the Agreement.

RESPONSE D90-2

The Lower Owens River Project is acceptable mitigation. Please see response to master comment MT-6. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE D90-3

Please refer to responses to master comments PD-5, for discussion of springs and seeps in general, and WA-4 for discussion of Reinhackle Spring in particular.

RESPONSE D90-4

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D90-5

Please refer to response to master comment PD-3 for an explanation on the exclusion of Mono Basin from the Draft EIR.

RESPONSE D90-6

See response to comment A4-13 in Letter A-4.

RESPONSE D90-7

Groundwater pumping and surface water management practices will be managed in a manner that is consistent with state and federal laws pertaining to rare and endangered species. Also, please refer to response to master comment VE-6.

RESPONSE D90-8

Please refer to responses to master comments MT-2 and MT-8 for discussion of mitigation alternatives.

Letter D91

Andrew Kirk

LETTER D-91

Andrew Kirk
POBox 263
Independence, CA. 93526

Mr. John A. Davis
Senior Vice President
EIP Associates
150 Spear St., Suite 1500
San Francisco, CA. 94105

Mr. Davis;

Please accept the following comments on the DEIR, Water From the Owens Valley to Supply the Second Los Angeles Aqueduct:

1. EIR, page 5-5. "Certain areas that contain vegetation of significant environmental value are not shown on the management maps. These areas will be identified by the Technical Group for monitoring purposes."

Citizen input, perhaps via a citizens' advisory committee, should be solicited when determining vegetation of significant environmental value.

2. EIR, page 5-23.

In some riparian areas, tamarisk provides the only wildlife cover. As part of the tamarisk eradication plan, has replacement cover been considered?

3. EIR, page 11-2. "As plant production returns to normal, animal populations decline and the smaller habitats, such as springs and riparian woodlands, maintain the largest and most diverse populations."

page 11-4. "...species richness of both plants and animals is directly related to water availability and structural complexity of the habitat."

Past practices have eliminated many of the riparian and spring areas in the Owens Valley. Now that they are recognized as being of paramount value, no more degradation of spring or riparian habitat should be accepted.

As a case in point, the spring flow at Reinhackle Spring should be maintained. Reinhackle is the last of the large springs still flowing on the valley floor south of the Poverty Hills. The spring vent area sustains a year-round community (remaining completely thawed even during the sub-zero cold-snap of December 1990, during which Diaz Lake, Billy Lake, Tinemaha Res., and Klondike Lake froze solid) of aquatic vegetation; it is frequented by snipe, sora, and Virginia rail. The locale is frequented by tule elk. The continuous availability of water has generated an area of significant biological and esthetic value at Reinhackle Spring.

No further impacts due to groundwater pumping or surface water management should be allowed at Reinhackle Spring.

4. Vegetation and Wildlife chapters in general.

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Both these chapters discuss biological resources only above ground. Below ground in riparian or spring areas are algae, mycorrhizal fungi, spring snails, earthworms and other annelids, insects, and more, forming a rich unseen ecosystem, without which many of the higher plant and animal species cannot exist.

An analysis of this sub-surface ecosystem should be added to the EIR. The EIR's discussion of impacts, and its discussion of environmental and enhancement/mitigation projects should include this aspect of the ecosystem. For instance, how has the loss of marsh and riparian areas affected the white-faced ibis, the snipe, the dowitchers, and other birds which feed on sub-surface plants and animals in the Owens Valley? How will the environmental and E/M projects perpetuate this resource?

It is obvious that an off-and-on water supply cannot maintain this below ground ecosystem. Accordingly, such environmental or enhancement/mitigation projects as Calvert Slough and Seeley Springs cannot fully mitigate for the loss of permanently watered sites.

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5. Page 12-11. "Approximately 40 acres (of the Independence springfield) remain barren and will be revegetated with native pasture."

Is it possible to maintain the original contours of this land, rather than leveling it before revegetating? The variety of contour could encourage plant species diversity and provide wildlife cover. (The recent Anheuser-Busch EIR revealed that an elevation change of even a few inches resulted in *sidalcea* population decreases.)

6

6. Page 5-5. "A change from one vegetation community to another within the same vegetation classification would not be regarded as significant."

I am troubled by some of the ramifications of this aspect of the management scheme. For instance, does this mean that alkali seep could be permitted to change to rabbitbrush meadow, since both are within the grassland/meadow classification? Does this mean that cottonwood/willow riparian forest could be permitted to change to tamarisk scrub, since both are within the riparian and bottomland classification? Are any distinct communities to be protected? More detail would be appreciated here.

7. EIR, page 9-73: "The ten-foot drawdown level at the end of three consecutive years (runoff year 1977-78 repeated three times) and maximum pumping during those three dry years..."

EIR, page 10-55: "(runoff year of 54 percent ...with annual pumping of 275,827 acre feet, 247,758 acre feet, and 222,942 acre feet)."

Greenbook, page 94: "These contours were developed by running the models under assumed worst-case scenario conditions (all existing wells pumping with recharge conditions ...).

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In general, it is unclear how the drawdown contours were developed and how they will be applied in the management scheme. This is a critical topic in the EIR and the agreement.

A more detailed explanation would be useful. Here are some of my questions:

1. Was pumping for enhancement/mitigation projects included in the modeling?
2. Was the model based on "maximum pumping", as stated on page 9-73, or on the three different totals listed on page 10-55?
3. Does "maximum pumping" mean all production wells pumping full bore for the entire year?
4. Is vegetation to be monitored only within the ten-foot drawdown area?
5. Are significant vegetation impacts outside of the ten-foot drawdown area possible?
6. Some of the vegetation and wellfield maps (Exhibit A: Independence, Big Pine, Laws) show production wells outside of the ten-foot drawdown areas. How is that possible?

8. EIR, Exhibit A, page 5 of 14.

On this map no type D (riparian/marsh) vegetation is shown for the area east of highway 395 at the base of Thibaut Creek. There is a large area of tule marsh there with willow trees on either side.

9. EIR, Exhibit A, page 7 of 14.

On this map no type D (riparian/marsh) vegetation is shown just south of the Alabama Gates. There is a large willow forest east of highway 395, and a spring-fed marsh area on both sides of the highway.

10. EIR, chapter 4, Environmental and Enhancement/Mitigation projects.

Supplying surface water to environmental projects or enhancement/mitigation ponds has provided a eutrophic environment ideal for the invasion of tules and cattails. The ponds resulting at Little Blackrock, Calvert Slough, and Billy Lake are questionable substitutes for the original marsh or spring habitats, due to tule/cattail infill. What methods are being considered to avoid eutrophication and consequent tule/cattail infill?

11. EIR, chapter 4, page 4-16.

Environmental and enhancement/mitigation project descriptions should clearly state whether the water supply to an environmental or e/m project is to be continuous (as at Billy Lake) or intermittent (as at Calvert Slough).

12. EIR, chapter 4, page 4-16.

In planning the Lower Owens River Project, existing conditions and anticipated conditions should be carefully compared in order to avoid trade-offs such as Billy Lake, where the pond was improved by inundating or drying a large area of pre-existing marshes. The new pond is a great place and a well-used fishery, but the lost marsh was perhaps equally valuable.

13. EIR, chapter 4, page 4-16.

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What priorities determine the choices of environmental and e/m projects? What is the overarching, valley-wide ecological vision being applied?

14

14. Since the activities of LADWP are an important part of the fabric of life in the Owens Valley, a regular column in the local press would serve to keep residents informed concerning status of mitigation projects, snow survey results, employee accomplishment and changes, DWP construction activity in the Owens Valley, real estate transactions, the annual operations plan, and other subjects of import. A *proactive* effort on the part of the LADWP to inform the citizens of the Owens Valley would be a welcome addition to the agreement.

15

15. EIR, chapter 17, CEQA Considerations.

Pre-project stream diversions reduced or eliminated recharge in certain areas. Where these areas intersect pumping cones of depression, cumulative impacts beyond those attributable solely to the pumping may have resulted. A consideration of these possible impacts should be included in chapter 17.

**RESPONSES TO COMMENTS
LETTER D91**

RESPONSE D91-1

Comment noted. Please refer to response to master comment PD-7 for a discussion of monitoring under the Green Book. Any members of the public or of any interested agency or organization may, upon request, observe any monitoring activity of the Technical Group or its staff.

RESPONSE D91-2

Revegetation is part of the saltcedar control program. The comment that saltcedar provides some wildlife habitat is accurate and noted.

RESPONSE D91-3

Please refer to the responses to master comments PD-5, for discussion of spring protection, and WA-4 regarding protection of Reinhackle Spring.

RESPONSE D91-4

The comment regarding sub-surface ecosystems is noted; however it also should be recognized that the scope of this EIR and the large geographical area of the project present limitations to the level of detail that any one issue can be explored. As additional studies are implemented in the valley, there may be opportunities to examine the issues raised in this comment; however, for the purpose of this EIR, such an examination is unlikely to alter the findings of significance that have already been established.

RESPONSE D91-5

Maintenance of the original contours of land considered for revegetation would be explored as a means of minimizing disturbance to top soil.

RESPONSE D91-6

Please refer to response to master comment VE-1 for information on allowable vegetation changes under the Agreement.

RESPONSE D91-7

- (1) Yes.
- (2) See explanation on page 94 of Green Book.
- (3) Yes. However, over 3 years, production amounts were decreased due to drawdown
- (4) No. Control sites are outside of 10 foot drawdown, as are productivity sites (Section II of Green Book). As of 1991-92, monitoring is being conducted outside the 10 foot drawdown areas.
- (5) Yes.
- (6) These wells didn't create a 10 foot drawdown when pumped in the model.

RESPONSE D91-8

Vegetation parcels less than twenty acres in size were not mapped for management purposes. These locations are known to both the Department and the County and are nevertheless protected under provisions of the Agreement and the Green Book. See also response to master comment PD-5 concerning seeps and other vegetation. See also response to comment B13-45.

RESPONSE D91-9

Please refer to the response to comment D91-8 above.

RESPONSE D91-10

Methods to prevent or minimize entrophication from occurring are under investigation by the Technical Group.

RESPONSE D91-11

See response to master comment MT-4 and response to comment A4-40 and C13-22.

RESPONSE D91-12

Comment noted. The Lower Owens River Project is still in the planning phase. Habitat value changes, if any, will be planned to result in beneficial changes, and not adverse changes such as that described in this comment (i.e. drying of marshes).

RESPONSE D91-13

The goals for the environmental and E/M projects varied and encompassed habitat restoration/improvement, recreation, fisheries, aesthetics, mitigation, and other goals. Please refer to response to master comment MT-1 for a discussion of these projects.

RESPONSE D91-14

Comment noted. LADWP does not currently publish a newsletter regarding local events. It does provide information to the Inyo County Water Department for use in the Water Reporter, and cooperates with the local press.

RESPONSE D91-15

Pre-project stream diversions are outside the scope of this EIR. Comment noted.

Letter D92

Josephine Lijek

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

WATER FROM THE OWENS VALLEY TO SUPPLY
THE SECOND LOS ANGELES AQUEDUCT
1970 TO 1990
1990 ONWARD

By: Josephine Lijek
1600 Argyle Ln.
Bishop, Ca.
93514

SUMMARY

Pg. S-2 Map:

The scale of miles is incorrect. According to the scale on this page the state of California is only about 5 miles long. This is a minor point but it shows that the document was not carefully reviewed before final printing.

CHAPTER 1: INTRODUCTION

Pg. 1-2 Map:

Scale of miles is again incorrect.

CHAPTER 4: WATER MANAGEMENT

Pg. 4-7 Graph:

Since this D.E.I.R. is for the Owens Valley only, Mono County information should not be included except in reference to amount of water available to Los Angeles. Irrigation of Mono County lands does not pertain to Inyo County.

CHAPTER 5: PROPOSED PROJECT

Pg. 5-3 Vegetation Classification:

Discusses reclassification of vegetation types, but is not specific as to what criteria will be used to determine a need for reclassification.

Pg. 5-3 Type A Vegetation:

Classifying Type A vegetation by transpiration rate only does not seem accurate to me. A community of drought-stressed Type B vegetation, if sparse enough, could have a transpiration rate that would classify it as Type A. Since Type A requires no mitigation under the agreement, this could result in significant areas of vegetation that have been damaged by water gathering but are incorrectly classified, ie. would have been Type B vegetation if never subjected to man caused drought conditions. I think Type A classifications should be further reviewed.

Pg. 5-5 Groundwater Mining:

Referring to increased pumping over the 20 year recharge rate, the phrase "for other relevant reasons" should be defined or stricken from the document. Allowing a 20 year period over which recharge will balance pumping should allow enough flexibility in pumping for LA's needs.

Pg. 5-27 Recreational Use of Haiwee Reservoirs:

Conditions of feasibility should be defined for North Haiwee Reservoir as well as for South Haiwee in advance of a final agreement.

CHAPTER 6: ALTERNATIVES TO PROPOSED PROJECT

Pg. 6-16 Alternative 7:

Contains an assumption of 50000 AFY from Mono Basin which is included in this alternative but not included in any of the other alternatives. This is inconsistent. All water inputs not part of the project should be consistent throughout the document.

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Pg. 6-21 Environmental Effects:

The statement "water demand may remain stable in LA but grow elsewhere, so that pressure on the water resources of Southern California will remain the same", does not belong in this document. The water agreement is between Inyo County and Los Angeles, and it is beyond the scope of this document to analyze future water demand in other areas not served by LADWP. It should not be unrealistic to expect that future development should not take place if a sure source of water is not available.

10

Pg. 6-18, 6-26

On page 6-18 it is stated that a loss of 42,000 AFY would comprise 6.5% Of LA's total available water supply, and that this amount of water could not be replaced by conservation or wastewater reclamation. This directly contradicts a statement on Pg. 6-26 indicating that water consumption during Spring and Summer of 1990 has been reduced by an estimated 10 to 15% due to awareness of the need to conserve.

CHAPTER 9: WATER RESOURCES

11

General Comments on Spring Flows:

I feel that there should be a restoration of minimum flows in Springs that have ceased to flow due to groundwater pumping, such as Big Seeley and Big and Little Blackrock. I feel springs have intrinsic value as a part of the natural world, in addition to their value as habitats to unique plant communities and wildlife. Development of the Lower Owens River and continuing water supply to Fish hatcheries does not in my opinion mitigate the loss of springs. Addition of surface water to former spring areas causes changes in plant communities due to the higher nutrient content of the surface water (as demonstrated at Big Blackrock), and is not an acceptable mitigation.

12

Pg. 9-55 Fluctuating Reservoir Levels and Dam Safety:

Considering the uncertain availability of water for Los Angeles, there should be some thought given to constructing new reservoirs to store water in years of high availability. LADWP should be considering this as part of a plan to maintain a reliable source of water, especially in light of the fact that several of the older dams and reservoirs are becoming unsafe. It seems foolish not to develop better strategies of water storage, especially in light of the current extreme

drought.

13

Pg.9-79,9-83 Mitigation of Impacts to Water Resources:
Why is no mitigation required for the drying up of springs? On pg.9-48 it is stated that CEQA guidelines consider a project to have significant adverse effects if it substantially depletes surface or groundwater resources. Drying up a spring is a substantial depletion of a water resource, and should require a mitigation.

14

Pg.9-86 Table 9-12:
There are no units of concentration listed for the constituents in this Table. Units should always be listed in all tables and graphs to avoid confusion.

15

CHAPTER 10: VEGETATION

Pg. 10-3, 10-4 Independence Precipitation:
On pg. 10-3 Independence is said to have mean precipitation of 5.1 inches and a median of 3.3 inches. On pg.10-4, Figure 10-1, Independence precipitation is graphically represented as having a median of 4.3 inches.

16

Pg. 10-7 to 10-12 Plant Community List:
The only community for which total cover is described is Nevada Saltbush Scrub. This is not consistent with the other community descriptions. I would like to see total cover estimates for all the plant communities listed in this section.

17

Pg. 10-49 Definitions of Significant:
Middle paragraph stating that centuries or perhaps millenia were required to produce the ecosystem of the Owens Valley. Continues to say that changes to this ecosystem during the past 90 years of water-gathering must be regarded as permanent. It is unclear what "changes" are being referred to here. If referring to changes caused by water-gathering this should be made clear.

The point of this paragraph is also unclear. Why must changes in vegetation be considered permanent? Short of major climatic changes or toxic contamination that is irreversible, I see no reason why vegetation would not have a flexible response to environmental conditions.

I also do not see why the amount of time it takes vegetation to recover is pertinent here. Affected vegetation may take decades to recover, and it may not, and there is no scientific basis for any of the statements in this paragraph. I don't see what purpose it serves in the document and think it should be deleted or rewritten.

18

Pg. 10-52, 10-53 Impacts 10-6 and 10-8:

It is my opinion that an attempt should be made to develop new methods of water spreading that don't result in proliferation of salt cedar in addition to implementing salt cedar control and eradication programs.

Pg. 10-63 Impact 10-15:

I agree that groundwater pumping should be managed to avoid causing changes or decreases in vegetation associated with springs, but disagree that surface water applied to these areas is an acceptable replacement of the natural spring flow. Surface waters are higher in nutrients than spring waters and will cause changes in riparian vegetation, as is evidenced at Little Blackrock spring. Supplying surface water to these areas should be used only as a temporary emergency measure, not as a permanent replacement for the natural flows.

CHAPTER 11: WILDLIFE

A general comment on this Chapter; it is essentially undocumented. I could not find more than one literature citation in the entire section. Many of the statements are based on undocumented "historical" evidence. I feel this is a questionable way to write a legal document. To be believable, evidence should be available from other sources to support the opinions and statements presented here, should the reader decide to investigate further about the wildlife of the Owens Valley. I find that in my eyes, the credibility of this entire chapter is suspect due to this lack of documentation.

Pg. 11-4 and 11-5 Background and History:

This section appears to be an attempt to make the Owens valley appear as a barren and lifeless place before the coming of the "white man". Is this an attempt to minimize the effects that water diversion has had on the valley? An attitude that presents, for example, that since there was nothing here in the first place, no damage was done to the environment?

I do not believe there was little tree growth and few birds in the valley in the 1800's. But if this was so I imagine there must be some documentation of this, but I see no references cited to support these statements.

Pg. 11-5 Background and History:

I do not believe the statement that the Owens River was "dry or flowed less than 2cfs in many years. I would like to see this statement referenced or deleted. I see it as another attempt to make it appear that water diversions have had little effect on the Owens Valley.

Pg. 11-27 Present Setting:

It is stated at the beginning of this section that there is no difference between present and pre-project wildlife populations. On the same page it is also stated that there is

a lack of quantitative data for pre-project populations or habitat requirements of said wildlife which prevents detailed comparison of present and pre-project conditions. If there is no data for detailed comparison there is no proof or basis for the statement that there is no significant difference between current and pre-project populations. It should be stated that impacts of the project on wildlife are unknown or unmeasurable due to lack of data.

24

Pg. 11-33 Big Game:

Tule Elk census figures taken at the highest estimate result in a value of 470 animals, not 490, and at the lowest estimate number 340 animals, not 360. If there is an automatic fudge factor of 20 individuals added to the census figures it should be noted and explained in the document. This table does not show elk populations well above 490 individuals, it shows the population to be less than 490 individuals.

25

Pg. 11-40 and 11-41 Mitigation Measure 11-1:

Klondike Lake should not be listed as a wildlife mitigation as it is so heavily used by humans it is of marginal use to wildlife, especially birds. Most waterfowl need to nest undisturbed.

The last paragraph states that the Lower Owens River will be managed to provide "benefits to wildlife that exceed the impact during the last 2 decades". Impact during the past 20 years has not been measured, and due to lack of data can't be measured, so this statement should be deleted.

26

CHAPTER 16: ANCILLARY FACILITIES

Pg. 16-34 and 16-35 Impact and Mitigation 16-11:

I feel that Reinhackle Spring should not be allowed to dry up under any circumstances. Any extended drying up of the spring is sure to impact vegetation, and adding surface water is not an acceptable mitigation unless used only as an emergency measure to prevent vegetation damage. Reinhackle is one of the few springs in the valley that has not been destroyed by groundwater pumping.

27

CHAPTER 17: CEQA CONSIDERATIONS

Pg. 17-5 Land Management:

Grazing management is listed here as a mitigation to avoid significant cumulative impacts to vegetation, therefore the results of grazing management programs should be reviewed to ensure they are actually preventing significant impacts to vegetation. I would like to see a grazing management plan in writing as a part of the agreement, because grazing has a very big impact on vegetation growth and survival. LADWP currently allows almost double the number of animals on its allotments than other agencies such as the BLM and Forest Service.

**RESPONSES TO COMMENTS
LETTER D92**

RESPONSE D92-1

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D92-2

Comment noted. No further response is required.

RESPONSE D92-3

Comment noted. No further response is required.

RESPONSE D92-4

See response to comment B13-45.

RESPONSE D92-5

Comment noted. Please see response to comment B13-45. Also, please refer to response to master comment VE-1 for a discussion of allowable vegetation changes under the Agreement.

RESPONSE D92-6

Comment noted. Please refer to response to master comment PD-12 for a discussion of groundwater mining.

RESPONSE D92-7

Please refer to response to master comment PD-16 for discussion of the studies to be conducted for Haiwee Reservoirs.

RESPONSE D92-8

The premise of Alternative 7 is to meet the export capacity of both aqueducts. This is the only alternative to include this component. To achieve the maximum export, 50,000 AFY is assumed from Mono Basin. This represents about half of Los Angeles' Mono Basin exports from 1970 to 1990.

RESPONSE D92-9

Comment noted; however the discussion of environmental effects is consistent with the topic of Section 6.3.1, Growth Limitations, in Chapter 6, Alternatives, and is retained.

RESPONSE D92-10

See response to master comment AL-3.

RESPONSE D92-11

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE D92-12

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D92-13

Please refer to response to master comment WA-1 for a discussion of significant effects on water resources. Mitigation of significant impacts to vegetation as a result of the reduction or elimination of spring flows is addressed under Impact 10-14, beginning on page 10-59 of the Draft EIR. Regarding wildlife, please see Impact 11-1, beginning on page 11-39.

RESPONSE D92-14

Comment noted. Units are in milligrams per liter (mg/l).

RESPONSE D92-15

The median given on page 10-3 should be 4.3 inches.

RESPONSE D92-16

See response to comment D21-25, #3.

RESPONSE D92-17

See the pre-project vegetation description in Chapter 10, Vegetation, page 10-27 of the Draft EIR.

RESPONSE D92-18

Comment noted. No further response is required.

RESPONSE D92-19

Please refer to response to master comment PD-5, protection of remaining springs.

RESPONSE D92-20

Comment noted. Please refer to response to master comment WL-2 regarding references to sources of wildlife data, and Appendix C-3 for bibliography.

RESPONSE D92-21

Please refer to response to master comment WL-2. In addition, the following information is presented. Document lack of trees in Valley:

- (1) William H. Brewer in *Up and Down California in 1860-64 – The Journal of William H. Brewer*. Entry of Thursday, July 28, 1864: "Where streams come down from the Sierra they spread out and great meadows of green grass occur." "Yet these meadows comprise

not over one-tenth of the Valley -- the rest is desert." Saturday, July 30, 1864: "At our camps in the Valley our only fuel was sagebrush, which burns like tinder, but is little better than straw to cook by. No trees grow in the Valley."

- (2) Quis -- a correspondent for the L.A. Star on the Expedition of Capt. Davidson to the Owens Valley in 1859: "The Valley is untimbered except for a few small cottonwoods."
- (3) L. T. Larsen, Forest Examiner, in "Hardwood Planting in Owens Valley, California," July 1, 1914 (a report on the tree farms planted between the 1880s and 1914): "Very little natural tree growth occurs in Owens Valley, Inyo County, California, and increasing demand for fuel and fencepost material has resulted in the cutting of most of the accessible timber in the surrounding region."

RESPONSE D92-22

Document low flows in river:

- (1) Inyo Register, August 11, 1898: "With the river and creeks at extreme low water mark, again comes the wonder why there are not more windmills or cheap water pumps in use in the Valley."
- (2) Inyo Register, September 7, 1899: "There is absolutely no water in the river past the Sanger and Black ditch dams." (Four miles north of Big Pine.)
- (3) Inyo Register, October 1, 1903: "Water in the Owens River is lower than ever recorded; less than 100 inches (2 cfs) passing the Independence Bridge."

RESPONSE D92-23

The statement cited in the comment relates to species diversity, not quantitative data on the total number of individuals of each species.

RESPONSE D92-24

Re: pages 11-33 (Tule elk herds): An error was made in this list. The numbers should read:

Bishop	80-100
Tinemaha	80-100
Goodale	50-70
Independence	60-80
Lone Pine	60-80
Mt. Whitney	<u>40-60</u>
TOTAL	370-490

These numbers are the recommended herd sizes under the Tule Elk management plan. They do not represent census figures.

RESPONSE D92-25

Klondike Lake provides habitat for migrating birds such as white pelicans, snow geese, tundra swans. The season of greatest importance for migratory birds is not the season of heavy human use.

RESPONSE D92-26

Please refer to responses to master comments PD-5, for a discussion of springs in general, and WA-4 for a discussion of Reinhackle Spring in particular.

RESPONSE D92-27

Comment noted. Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

Letter D93

Phyllis Mottola

Phyllis Mottola
362-B Vista Rd.
Bishop, CA 93514

RECEIVED
JAN 30 1991
11:35 AM

Comments on DEIR & Water Agreement for Inyo County

1. Lack of baseline data

Data is lacking in the DEIR on the affected environment prior to the DWP project. Complete and thorough information on occurrence and distribution of various plant and animal species, and location and extent of different habitat types (i.e. riparian, meadow, marsh, spring) is necessary for an evaluation of project impacts.

2. Divestiture of lands

Much of the lands that are proposed to be turned over to local government are meadow and other wetlands. These are of great biological and scenic value and must be preserved, not developed. Lands to be divested for development purposes should be chosen from habitat types that are less biologically critical or, preferably, lands already degraded by human activities. Protection of wetlands should be written into the agreement.

3. Grazing

A complete discussion must be included of cumulative impacts of grazing and of the proposed management program. The grazed DWP lands which I am familiar with are in poor condition. In addition, unintentional releases of irrigation water caused large mosquito-hatches last summer, resulting in a costly spraying program undertaken by the County. I was told that irrigation gates either broke or were vandalized, causing the unwanted release of water. The gates and irrigation systems I have seen are in such poor repair that such a release is not surprising. They are old, worn and jerry-rigged systems constructed of decaying wood and deteriorating sheets of plastic. Any grazing management plan must include a sound and well-maintained irrigation system. The citizens of Inyo Co. should not have to bear the health and financial costs of mosquito infestations brought about by poor management of irrigation water.

Another aspect of grazing that must be addressed is its impact on native and naturally-occurring trees. In looking at DWP grazed lands one sees little or no seedling regeneration of trees. If protective measures are not taken soon to insure tree reproduction there will be very few trees left in Owens Valley in 100 years.

4. Native pasture lands

These lands should be preserved, not converted to alfalfa. Conversion would result in a loss of native vegetation and wildlife habitat.

5. Springs

Remaining springs must be maintained in a natural state, and their surrounding habitat protected and restored. Further degradation must not be allowed. Attempts should also be made to rehabilitate springs which have stopped flowing. A spring inventory and management plan should be included in the EIR.

Rewatering the lower Owens River, while an important project, cannot be considered mitigation for the destruction of springs.

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6. Joint decision-making

Any decision to turn wells back on must be made jointly by DWP and Inyo Co., not just by DWP.

7

7. Drought recovery policy

This policy should be changed so that soil moisture be allowed to recover to levels necessary to support vegetation levels in the 1984-87 survey before pumping is allowed.

8

8. Monitoring and "safe yield"

A valley-wide monitoring system is necessary which can detect a 10% change in vegetation. Until this system is established, pumping must have an upper limit based on "safe yield" to maintain vegetation levels in the 1984-87 survey.

9

9. Significant impacts

The term "significant" needs to be defined in a more detailed and specific way which is consistent with the goals of the agreement.

**RESPONSES TO COMMENTS
LETTER D93**

RESPONSE D93-1

Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE D93-2

Please refer to response to master comment PD-15 for a discussion of the release of Los Angeles owned land and potential effects on wetlands.

RESPONSE D93-3

Comment noted. Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D93-4

Please refer to response to master comment VE-1 for a discussion of allowable vegetation changes under the Agreement.

RESPONSE D93-5

Please refer to responses to master comments PD-5, for a discussion of springs in general, and WA-4 for discussion of Reinhackle Spring in particular. The Lower Owens River Project is acceptable mitigation. Please see response to master comment MT-6. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under

CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE D93-6

Please refer to response to master comment PD-6 for discussion of the issue of well turn on/off.

RESPONSE D93-7

Please refer to response to master comment PD-17 for a discussion of the drought recovery policy.

RESPONSE D93-8

The rationale for the threshold of "10 percent change in vegetation" is not clear. The criteria for determining significant effects that will be used in the future are described in Section I.C of the Green Book.

RESPONSE D93-9

The criteria for identifying significant effects are described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Please refer to response to master comment PD-18 regarding the use of the term "significant" in the Agreement. Also, see response to master comment MT-7.

Letter D94

Myron E. Alexander

Comments concerning the Draft Environmental Report of WATER FROM THE OWENS VALLEY TO SUPPLY THE SECOND LOS ANGELES AQUEDUCT : 1970 to 1990 & 1990, PURSUANT TO A LONG TERM GROUNDWATER MANAGEMENT PLAN. (Dated September 1990)

1. Subject E.I.R. is not presented in a manner easily read and understood by the general public. It is difficult to comprehend by a person with a good technical education. It could have easily been published with the general public in mind.

2. Green Book has a good glossary but impossible for anyone but a professional to understand. I did not read it. I would read, however, any peer reviews.

3. In general on the "agreement" : Inyo county does not seem to have an overall policy or set of policys to deal with LADWP's presence and operations in the valley. A specific time should be indicated when LADWP stop mining water from Owens Valley. LADWP, on the other hand has stated publicly they have no interest in the environment and only seek to obtain as much water as possible at the cheapest price. (Their ~~retireing~~ chairman stated this when retireing and when Mayor Tom Bradley appointed a woman with an environmental background to the board.)

4. Throughout the book, it seems to me that there is too much mitigation proposed of the #5 catigory. (5. "Compensating for the impact by replacing or providing SUBSTITUTE resources or environments.")

5. The "agreement" allows more wells and increased pumping. The "agreement" provides for an increase of water flowing to Los Angeles through the aqueducts. *NOT ACCEPTABLE.*

6. Why would the county want to take possession of the town water supply and distribution systems of Big Pine and Lone Pine but not have possession of the wells and pumps? This does'nt make good business sense from the county's point of view.

7. With regard to the mitigation measure called the "Lower Owens River Project: Since LADWP is responsible for the drying up of this area, they alone, should be responsible and pay for it's implementation, and continued operation.

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8. The EIR avoids any discussion of dry Owens Lake. The Lake is not mentioned in the "agreement" either. Someone seems to want us all to believe that "OTHERS" will mitigate this disaster and of course we all know that this will never happen. It is one of the most serious consequences of the LADWP exporting and mining water from Owens Valley and this is certainly the time and place to examine, discuss and propose mitigation of this pressing health and environmental problem.

7

9. Section 9-10 indicates that there is no subsidence observed between 1920 and 1990. It draws the conclusion that, therefore, no mitigation is required. Any high school science student will note that something is decidedly wrong with these statements. It is not possible to mine, extract, &/or pump water from Owens Valley aquifers for 70 years or more and not have subsidence effects. This would violate a host of physical laws dealing with weight, mass, gravity, etc.

8

10. No where in the EIR do I see any mention of cause and effect observations of the many, many springs in the Inyo Range that have dried up. Many of these springs are shown on old topo maps and yet, when hiking through these areas one notes their absence. Does LADWP mining have an effect on these one-time springs? Do the absence of these springs account for the notably fewer species of wildlife in the Inyos?

9

11. Impact 9-14 on page 9-74 is a good example of the deleterious effects of mining and exporting water from the Owens Valley. Mitigation measures are completely inadequate and only exacerbate the lowering of the groundwater level. It is no wonder the Steward Ranch folks have not accepted this measure.

Submitted by: Myron E. Alexander
P.O. Box 912
155 Lakewood St
Lone Pine, CA 93545
(619) 876-5972

**RESPONSES TO COMMENTS
LETTER D94**

RESPONSE D94-1

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D94-2

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D94-3

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE D94-4

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D94-5

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE D94-6

Please refer to responses to master comments PD-3 and AQ-1 for discussion of Owens Dry Lake.

RESPONSE D94-7

Please refer to response to master comment G-1 for discussion of the issue of subsidence.

RESPONSE D94-8

The springs in the Inyo Range that are cited in this comment are located well above the valley floor and are not hydraulically related to springs on the valley floor.

RESPONSE D94-9

Comment noted. No further response is required.

Letter D95

Tom & Linda Lorenz

John Davis, Senior Vice President
EIP Associates
150 Spear St., Ste. 1500
San Francisco, CA 94105

RECEIVED
JAN 31 1991
EIP ASSOCIATES
SAN FRANCISCO, CA.

Comments on the Draft EIR:
Inyo County/LADWP Long-Term Water Agreement

1) The overall perspective of the report is written to subtly bias the reader toward L.A. and against Inyo County. For example:

- o (the intro & pg. 14-16) a conclusion is made that without LADWP constraints, there would be rampant uncontrolled growth in the valley. This reduces county and city government to powerless entities, when, in fact, controlled growth is a political tool any government could use.
- o population statistics are discussed without acknowledgement of the part played by lack of water in reducing those populations (intro)
- o the valley is described in terms that would conjure up pictures of a wasteland
- o the report states that LADWP "acquired rights to land and water in Owens Valley." This bland, neutral statement omits the human element, the tension and protest, and the alleged deceit under which LA made these acquisitions.
- o environmental impacts are "perceived" instead of "observed" (page 2-10)

These items demean the population, the Valley, and local government, and, as a result, unjustly minimize the impacts of water export.

2) The report needs to specify the allowable lapse of time between the start of mitigation projects and the start of water export. CEQA reviews can be lengthy, and water export could continue to damage the valley before mitigation even got started. This could also be a tool for deliberate delay. The start of water export must be tied to the start of specific mitigation projects.

3) The extent of damage mitigated by a particular project must be specified. For example, the Lower Owens River project will be good, but it cannot begin to make up for damage to the entire valley and is notably inappropriate as a mitigation for the damage to or loss of natural springs and their environment.

4) The term "significant" must be defined. Then, plans must be made and implemented for this damage to be anticipated and prevented, not responded to after the fact.

5) Type A vegetation plant communities "are not affected by groundwater pumping," EXCEPT as increased water export decreases the water available for evaporation and therefore reduces precipitation. This must be acknowledged and responded to.

6) Drought is common now in this closed ecosystem where water was once abundant. Consideration, and action, must be given to the possibility that water export has impacted the water available for recycling between the high mountains that enclose this valley. (The

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precipitation, groundwater, evaporation, precipitation cycle of water caught between the high mountains.)

7) Conversion of cultivated land from one use to another could be significant and should be controlled by a joint Inyo group.

8) Water recharge and surface water application is not the same as ground water supply and should not be overly relied on as a replacement for groundwater.

9) It should be ^{specifically} ~~significantly~~ noted that revision of the Green Book requires joint effort and agreement by Inyo County (pg. 5-6).

10) Indian water use is mentioned; Indian water rights and their conflict with LADWP is not dealt with, and should be.

11) Dry year reductions of water supply for irrigation, mitigation projects, and other in-valley uses should be tied to reductions in water export on a proportionate basis (e.g., 10% cut in one requires a 10% cut in water export).

12) It should be noted that the vegetation baseline years follow drought years that must have affected the baseline vegetation. This should be taken into consideration when determining vegetation baseline and impacts thereto.

13) Lands made available to public or private use for development should not be those located in wetlands, along the river, in special habitats, or in other areas where development is not desirable or environmentally sound.

14) Under no circumstances should LA make decisions without Inyo County cooperation. This includes turning on any wells for any purposes.

15) Water in the soil must be protected for use by vegetation.

16) Monitoring details and responses described in the Green Book need to be made more specific.

17) The DEIR availability timed with elections and holidays badly. We are glad for the small extension, but would be able to make much better use of further review and comment time.

18) *Impacts on lands other than those owned by LADWP must be considered ^{in the report} resolved.*
We apologize for the lack of organization. Time is of the essence.

Sincerely,

Tom and Linda Lorenz

Tom and Linda Lorenz
P.O. Box 613
Bishop, CA 93515

**RESPONSES TO COMMENTS
LETTER D95**

RESPONSE D95-1

Comment noted. No further response is required.

RESPONSE D95-2

As stated in the Green Book, Section I.C.2, the first consideration for mitigation is the cessation of groundwater pumping from wells affecting the impacted area. This would occur immediately upon determination of an impact.

RESPONSE D95-3

The Lower Owens River Project is acceptable mitigation. Please see response to master comment MT-6. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE D95-4

The criteria for identifying significant effects are described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Please refer to response to master comment PD-18 regarding the use of the term "significant" in the Agreement. Also, see response to master comment MT-7.

It is stressed that the primary goal of the Agreement is to avoid significant impacts to the environment; mitigation is to be utilized only as a secondary management tool.

RESPONSE D95-5

This comment contends that groundwater pumping has conclusively been determined to affect local weather. This contention is unfounded.

RESPONSE D95-6

The precipitation that falls in the Sierra Nevadas results from storms moving east off of the Pacific Ocean; the winter storms (or lack thereof) are influenced by large high-pressure systems centered over the Pacific Ocean and by the jet stream.

RESPONSE D95-7

Please refer to response to master comment VE-1 for a discussion of allowable vegetation changes under the Agreement.

RESPONSE D95-8

Comment noted. No further response is required.

RESPONSE D95-9

Any future changes made to the Green Book must be agreed upon by Inyo County and Los Angeles.

RESPONSE D95-10

Please refer to responses to master comments PD-8, PD-9 and PD-10 for a detailed discussion of the relationship between the proposed project, Draft EIR and Indian tribes.

RESPONSE D95-11

Comment noted.

RESPONSE D95-12

The 1984-87 baseline for vegetation management under the Agreement followed a wet period.

RESPONSE D95-13

Please refer to response to master comment PD-15 for a discussion of the release of Los Angeles owned lands and potential effects on wetlands.

RESPONSE D95-14

Please refer to response to master comment PD-6 for discussion of the issue of well turn on/off.

RESPONSE D95-15

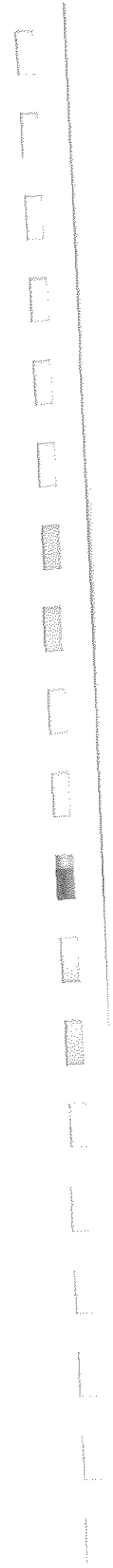
Comment noted. Protection of soil water for use by vegetation is the purpose of the Agreement.

RESPONSE D95-16

This comment is general -- no provisions of the Green Book are cited for clarification.

RESPONSE D95-17

Comment noted. No further response is required.



Letter D96

Sharon Rose

LETTER D-96

To: John Davis, EIP Assoc., 140 Spear St., #1500, San Francisco, Ca. 94105

Comments on Draft EIR, Water from Owens Valley to Supply 2nd Aqueduct, SCH # 89080705

Comments by: Sharon Rose, 187A Johnston Dr., Bishop, CA 93514
Concerned resident of Owens Valley, United States Citizen
January 28, 1991

187A Johnston Dr.
Sharon Rose
Bishop, Ca 93514
1-28-91

EIP ASSOCIATE
FEB 5 1991

The EIR is inherently defective in that it does not address Owens Valley vegetation prior to 1970. Although the title of the EIR distinctly limits the analysis to the period after 1970, the EIR should look back to the life of the first aqueduct, to determine the truth of water gathering impacts (combined impacts) on valley life forms.

2

It is my understanding that under the guidelines of CEQA, cumulative impacts must be fully addressed. To treat the 2nd aqueduct as an entity unto itself is erroneous and not in compliance with environmental law.

3

The EIR proposes mitigations for springs and seeps. The EIR admits "significant" impact at several springs (page 10-59). Under California Law (CEQA), mitigation for impact includes: avoiding impact; minimizing impact; rectifying impact; reducing or eliminating impact; providing substitutes, i.e. compensatory mitigation. There can be no mitigation for nature's work at springs and seeps. Even "on-site" mitigation is completely unacceptable and unnatural. The only mitigation, in the case of springs and seeps, is AVOIDING IMPACT.

4

Throughout the vegetation section of the EIR, areas of vegetation adversely affected by groundwater pumping are noted, including: Laws; Fish Springs and Blackrock hatcheries; Symmes-Shepherd well field; Five Bridges and others. In some cases, increased groundwater pumping to supply enhancement/mitigation has sacrificed one area for another. This is crazy. Again, cumulative impact of groundwater pumping must be assessed. If an area has lost vegetation, or if a pond, spring or seep has dried up due to groundwater pumping, can it be true that surface application of pumped water will compensate for damage due to unnaturally low water table levels. This is falacy. When the above mentioned destructions occur, with their accompanying impacts of loss of plant and animal life and soil erosion, groundwater pumping must be reduced overall. The only mitigation for many of the significantly affected Owens Valley lands is decreased groundwater pumping. All springs and seeps must be preserved in their natural state.

The loss of ponds, springs, seeps and wetlands during the period of the second aqueducts can only be mitigated by decreased groundwater pumping, especially in periods of drought. The creation of new ponds in no way mitigates destruction of what nature had provided.

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Instead of mitigation for springs, seeps, ponds and wetlands, the EIR should include a management plan for spring inventory and management.

6

The EIR should more graphically define "significant Impact." Any decreases in vegetation due to pumping must be considered "significant."

7

Sections which grant Los Angeles "unilateral" authority in pumping decisions must be deleted from the agreement, as these violate the spirit and intent of joint management as defined by the Technical Group and Standing Committee.

8

Livestock grazing and water management must be looked at in the EIR for cumulative impacts. A grazing management program, under CEQA, must be fully explained and open to public review.

9

Desalinization of ocean water should be addressed in this EIR, as a mitigation (under CEQA), which would AVOID IMPACT on Owens Valley altogether.



**RESPONSES TO COMMENTS
LETTER D96**

RESPONSE D96-1

Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE D96-2

Cumulative impacts are discussed in Chapter 17, CEQA considerations; and in responses to master comments PD-3, AQ-1 and MT-5.

RESPONSE D96-3

This comment expresses a personal opinion about mitigation that is not consistent with CEQA. Please refer to response to master comment MT-3 for a discussion of mitigation under CEQA.

RESPONSE D96-4

Springs and seeps are protected under the Agreement. Please see response to master comment PD-5. The remainder of this comment expresses personal opinions. No response is required.

RESPONSE D96-5

Please refer to response to master comment PD-5 regarding protection of remaining springs.

RESPONSE D96-6

The criteria for identifying significant effects are described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Please refer to response to master comment PD-18 regarding the use of the term "significant" in the Agreement. Also, see response to master comment MT-7.

RESPONSE D96-7

Please refer to response to master comment PD-6 for a discussion of the issue of unilateral well turn on/off.

RESPONSE D96-8

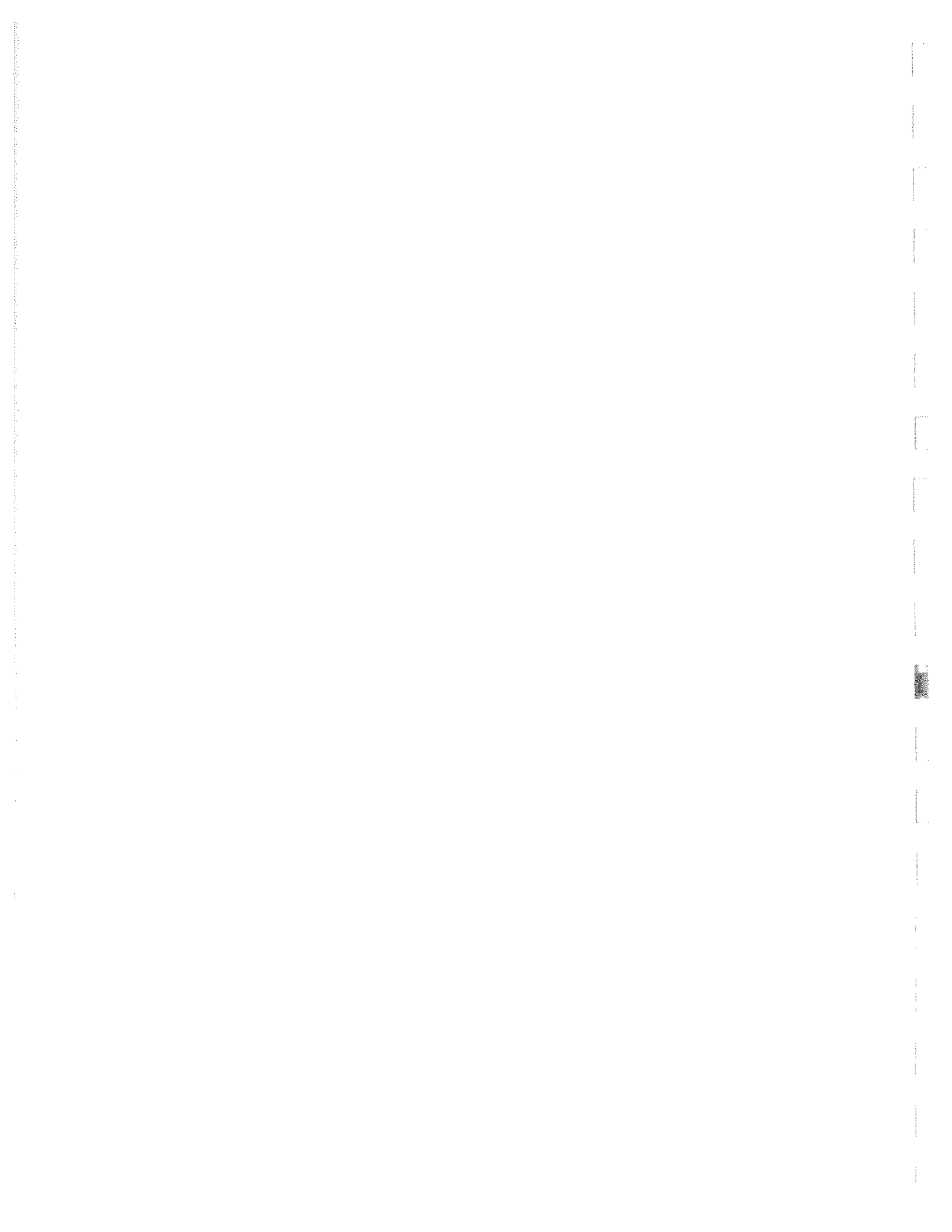
Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D96-9

Desalination is discussed in Chapter 6, Alternatives, and in response to master comment AL-2. It is unlikely that desalination could seriously be considered as mitigation, given the substantial negative energy, water quality, and solid waste disposal impacts associated with desalination.

Letter D97

Mary DeDecker





LETTER D-97

140 PAVILION STREET
P.O. BOX 506
INDEPENDENCE, CA. 93526
(619) 878-2389

Mary DeDecker

Botanist

February 2, 1991

Mr. John A. Davis
EIP Associates
150 Spear Street
San Francisco, CA 94105

Dear Mr. Davis:

Upon rereading my comments on your draft EIR on the ground-water management plan for Owens Valley I find a serious typing error.

In the paragraph on *Cordylanthus ramosus*, page 3, the date given on the second line should be 1974, not 1984. I would appreciate it if you will make the correction. Thank you.

Yours sincerely,

Mary DeDecker

Mary DeDecker

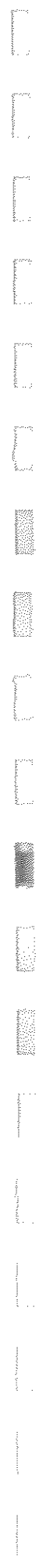
1



**RESPONSES TO COMMENTS
LETTER D97**

RESPONSE D97-1

Comment noted. No further response is required.



Letter D98

Irene Yamashita

LETTER D-98

407A E. Yaney
Bishop, CA 93514
January 28, 1991

John Davis, Senior Vice President
EIP Associates
150 Spear St., Suite 1500
San Francisco, CA 94105

RECEIVED


JAN 30 1991

EIP ASSOCIATES
SAN FRANCISCO, CA

Dear Mr. John Davis:

Thank you for the opportunity to review and comment on the draft EIR and accompanying texts. My comments are ordered by EIR, Agreement and Green Book. Page numbers are given prior to a comment when appropriate.

Sincerely,



Irene Yamashita

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Summary

Agreement

S-2: Please correct the scale on Fig. S-1.

S-5: Discussion regarding the five management types is consistently incorrect in the EIR, Green Book, and Agreement. Please refer to pg. 44-45 of the Green Book for the correct process and correct in all documents. Parcels were first designated into communities based on dominant species. All communities were designated ET values and those communities with ET values equal to or less than the avg. annual precipitation, were classified as type A. All other parcels were then sorted regardless of their community designation for ET values less than avg. precipitation, and included in type A. Therefore impacted communities with low density received low ET values and are considered as Type A. Scrub communities that passed the initial sorting were placed into type B and etc. Management types were not based on the dominate species as stated in the EIR.

S-6: The second paragraph is incorrect. Vegetation changes are based on the 1984-87 inventory not 1981-82 as stated in the EIR.

S-7: The Technical group is charged with periodic monitoring of environmental project and all enhancement/mitigation projects. This monitoring has not been addressed in the EIR, Green Book, or agreement although it is an integral part of CEQA. How will the success of a project be judged? Will there be public input on future projects?

S-11: The summary states the high run-off in 1982 and 1986 allowed the vegetation to recover "to its greatest vigor since 1970". The vegetation chapter in the pre-project section states "no surveys or inventories exist that document the vegetation conditions during this [pre-project] period". Please provide evidence for the initial statement and include in the vegetation chapter.

Summary of impacts and mitigation

Cumulative Impacts

S-13: Information regarding the impacts of grazing is missing. Please expand this section to include past impacts and changes in livestock stocking numbers with the increase of water gathering activities. What data is currently available to understand grazing pressures on vegetation within the 10' drawdown contours for worst case pumping scenarios?

Areas of Controversy

This section failed to mention mandatory water conservation or growth limitations in the City of Los Angeles. This is especially critical as the EIR points out the increase pumping from the No Project alternative only accounts for 6.5% of the water needs for Los Angeles (pg 6-18).

8

This section needs to include the disagreements amongst the researchers involved with the pre-project descriptions of the valley's vegetation. The EIR lacks an adequate pre-project description because of this lack of consensus on the analysis of historical records and aerial photos. Please provide more information regarding this area of controversy.

9

S-22: The mitigation success of type D vegetation needs to be assessed more honestly. This could be achieved by stating that mitigation appears to be successful if surface water can be applied immediately to the impacted area with an accompanying rise in the water table and the exclusion of cattle. If the "proven successful" mitigation only consists of the Five Bridges area then I feel the summary overstates the success of this type of mitigation.

10

S-22: The EIR acknowledges the experimental nature of shrub revegetation. Are there alternative mitigation plans for revegetation if subsequent studies demonstrate it is not be feasible? If revegetation is deemed infeasible what criteria will be used to make this decision and who will make it?

Chap. 4 Water Management in Owens Valley

The Los Angeles Aqueduct System

11

4-3: Please correct Fig. 4-1, it makes no sense.

12

4-7: Fig. 4-3 is extremely misleading. The inclusion of Mono County hides the drastic reductions in irrigated acres in Inyo County. Please redo the graph with only Inyo County.

13

4-10: Please give an explanation of the extreme changes in town water uses. This information is necessary to assess the amounts of water involved in the town water transfers.

Chap. 5 Proposed Project

14

5-3: The current drought has demonstrated a need for a more extreme worst case scenario. The 10' drawdown contours should be redrawn for the low runoff we are currently experiencing. The criteria involved for the worst case scenario is difficult to find and should be referenced and compared to current drought conditions.

15

5-5: The management of type E should not allow native pastures to convert to a non-native crop such as alfalfa. This would be a significant loss of native plants and their associated value to wildlife.

16

5-5: The identification of " Other Vegetation" is an important part of the proposed project and must be completed as part of the EIR. The public and Inyo County's decision makers must be able to judge the adequacy of this mapping as part of accepting this EIR.

17

5-5: The groundwater mining provision is not in the spirit of the goals of the agreement. If it becomes necessary to invoke the groundwater mining provisions then the vegetation of the valley will have been lost as well as any other discharges that were not considered as part of this provision.

18

5-19: How are the projects listed in Table 5-2 managed? Those areas listed as wildlife habitat should also state if there are heavy hunting pressures. Klondike Lake is becoming

more popular as a recreational area with decreasing value as a wildlife habitat area. Seely Spring, the artificial pond, not spring, may be larger than the original spring but there were previously two springs.

5-24: In order to be consistent with the goals of the agreement land releases should not consist of wetlands. It must be considered any land released will be used for development purposes and thus destroy the native vegetation of the parcel.

Chap. 6 Alt. to the Project

6-20: I cannot accept the conclusions that L.A. doesn't have constraints on their water supplies. Environmental awareness is changing the course of water politics in the state. The assumption that water is up for grabs is disturbing in lieu of honest efforts for both water conservation and growth limitation in the city. Los Angeles could increase the quality of life by limiting growth and creating effective public transportation and services for its residents.

6-25: If L.A. does not believe in the efficacy of a price block system why are there no figures given on change or lack of change in those cities that have implemented this pricing system? How did metering the towns in the Owens Valley affect water use? If excess profits result from this pricing system then the money should be targeted for strengthening conservation programs to make the basic rates possible for all businesses, institutions, and residents.

Chap. 8 Geology, Soils, and Seismicity

Impacts and Mitigation Measures

8-13: The EIR states that the loss of a shallow water table can create highly alkaline soil on the valley floor (8-12). Has this been an impact from groundwater pumping?

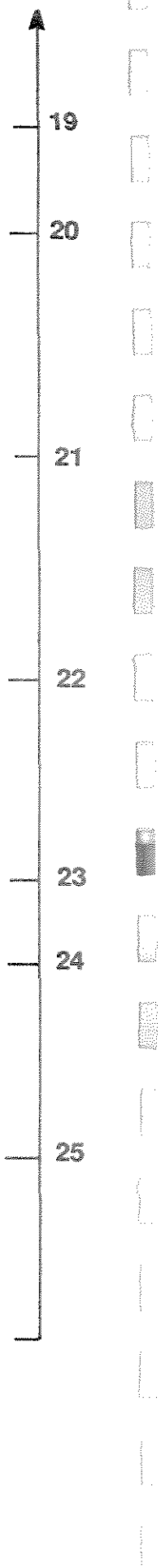
How has the loss of the Independence Springfield affected the soils? Has there been a loss of water holding capacity?

Chap. 9 Water Resources

Introduction

There is a need to define the term "water resource". Many significant changes have occurred but apparently do not affect the "water resource" according to the impact section. Please provide a definition to place the impact assessment in context.

9-1: The statement that "The Owens Valley is a closed hydrologic system" is included in the EIR several times (10-28). What is the reference for this? The USGS water supply report states "What happens,... to ground water that flows to the southern end of the groundwater system at Owens (dry) Lake is not know with certainty". The report provides estimates of 5,000-20,000 acre feet per year leaving the defined aquifer system (Hollet and others, 1989).



26 **Impacts of the Project**

9-63: The change in groundwater flow patterns does not call for mitigation. What are the vegetation impacts due to the change in flow? Why is this not addressed in the vegetation chapter? Are there any other impacts caused by the change in groundwater flow patterns?

27

9-71: Please correct Fig. 9-23, north arrow is wrong.

28

9-77: Decreased water tables are not considered an impact. Hasn't the water resource diminished as a result of the project? This mitigation assumes the vegetation monitoring works.

29

9-78: The USGS determination that valley ET dropped 36% was not based on "very wet" years as stated in the EIR. This would imply you believe a 109% runoff year is statistically different from a 100% runoff year.

30

9-80: Table 9-11 is very useful to understand the changes due to the project. Please update.

31

9-78-83: If the cessation of springs is directly linked to pumping, why is there no mitigation for the loss of springs? As a water resource they no longer exist due to pumping. This resource provided a more dispersed wet habitat for wildlife and vegetation and was especially unique in a desert environment.

32

9-83: The application of surface water should not be an allowable mitigation under the agreement. Surface water is often warmer, higher in nitrogen, may carry undesirable seeds, and generally dependent on pumping. All efforts must be made to keep springs and seeps in their natural state (esp. Reinhackle). No new pumps that may affect a spring can be allowed.

33

Chap. 10 Vegetation

Introduction

Plants should be referred to in a consistent manner. Please be consistent with the spelling of saltgrass.

There should be an effort to standardize terminology when referring to vegetation type, classification, and community. This should also be applied to the Green Book and Agreement.

34

Vegetation Characteristics

35

10-3: The text of the median vs mean precipitation values do not agree with Fig. 10-1.

10-11: The Desert Greasewood Scrub community according to Holland is typified by "heavy, fine-textured poorly drained soils of high osmotic potential. Often with a high water table and salty crust". If valley communities deviate from this please explain. I have often observed greasewood in very wet habitats.

10-15: The description of the Transmontane Alkali Marsh is in error and should be corrected as follows (changes in italics): Occurs in areas of standing, more or less permanent water, and differs from cismontane alkali marshes that have a *longer* growing season and *warmer* winter temperatures.

10-19: Please provide a reference for the statement that Black Locust Woodland exists where it receives water in excess of precipitation. Should the location description should also include *areas of high water table* along with irrigated fields, and spring or riparian habitats?

10-19: This section fails to provide any information regarding population size or extent. As an informational document it is important to provide maps to decision makers on where these populations exist in relation to groundwater and surface water activities and the current condition of the populations.

10-25: I am concerned with the use of average annual precipitation for the USGS 7.5 minute quad. This type of averaging includes DWP property on the alluvial fans. Average annual precipitation values should be done on a parcel by parcel basis. Each parcel should have an elevation and associated precipitation value. This would reduce the possibility of a vegetation parcel being incorrectly classified to a lower type than is appropriate for its location.

10-25: The description of Type A vegetation is misleading. The EIR states that this community "is unbuffered by groundwater and tends to experience near complete exhaustion of soil water reserves annually"(10-26). This may be true of those communities located on bajadas but of most concern are those plants on the valley floor subject to impacts from groundwater pumping.

The description of Desert Sink Scrub (Type A) includes an association "with poorly drained soil, ... a high water table...occurs on moist valley bottoms...and is often associated with a relatively shallow water table." This community occupies 23,711 acres of valley bottom. Desert Greasewood Scrub another Type A community is described in my earlier comment as being associated with a high water table. This community occupies 25,694 acres of valley floor. According to these description of communities, 49,405 acres are potentially misclassified and mismanaged as Type A since they are described as dependent on a shallow water table.

Pre-Project Setting

The pre-project description is inadequate. Maps of changes in vegetation would be necessary to assess past impacts and potential future impacts. Since there was disagreement amongst researchers the EIR could at least provide the range of disagreement. There does not appear to be a lack of reference material. Several maps are referred to but yet none are presented, for example, the 1973 Earth Sat. Inc. map, Griepentrog and Groeneveld's map in the Owens Valley Water Management Plan (1981), and the 1906 survey conducted by C.H. Lee. The report by Ecosat Geobotanical Surveys Inc. (1990) references further work that should have been incorporated into a pre-project description.

The impact section describes changes that need to be addressed in this section, impact 10-11 (pg 10-57) is the loss of 655 acres of groundwater dependent vegetation.

The disagreement over interpretation of air photography does not bode well for future discussion of monitoring by aerial and satellite methods.

43

10-23: The EIR fails to assess the conditions at the springs and seeps in the valley. Noted botanist Mary DeDecker should have been consulted for a list of plant species and their extent around these unique areas. This is a significant omission.

44

10-28: The final summary of the pre-project setting appears entirely subjective. What did EIP do on their field surveys to decide "the vegetation types occurring in the Valley prior to 1970, are much the same as the vegetation that occurs there today" when EIP failed to provide an adequate pre-project analysis? What is meant by vegetation type in this context (management types)?

45

10-33: The statement "all of the above springs ceased to flow due to regional groundwater pumping ..." includes unnamed springs. Why is there no map to show where these were located and how many have been destroyed due to increased groundwater pumping.

46

Impacts and Mitigation Measures

10-47: The loss in ET of 40,000 acre feet per year as reported by the USGS needs to be accounted for and included as an impact.

10-47: Please provide the figures from the Jacques report as was done with Griepentrog and Groeneveld on page 10-46.

10-51: Impact 10-3 is incorrect, Shepherd Creek was put into a ditch and Birch Creek (south of Big Pine) was diverted.

10-53: Please provide a quantification to verify that Tinemaha Reservoir levels only varies slightly due to the project. The potential impact to air quality and vegetation would be significant.

10-59: The impact to the Symmes-Shepherd wellfield is mapped as type A yet this description states the affected vegetation was previously supplied by shallow groundwater and surface seeps. Will this area be reclassified as type B if experimental revegetation is successful? What species are being considered for this revegetation project? If supplemental water is applied to the revegetation project it should be incorporate water conservative methods. If revegetation is not successful can other mitigation efforts be discussed in lieu of revegetation?

47

10-59: There are no provisions for those areas that did not have water table recovery during the '82 runoff year, Laws, Fish Springs, and Blackrock. If we are to accept the impacts in these areas then it needs to be addressed in this section.

10-62: Mitigation for the springs must be to avoid the impact. There must be strong wording to protect Reinhackle Spring from groundwater pumping pressures or mitigation thorough surface water application. Reinhackle is the last remaining spring in the southern part of Owens Valley and deserves special protection. The Lower Owens River should not be considered as compensatory mitigation for the springs. This project is still subject to CEQA and its implementation is not assured.

48

10-63: Past irrigated lands that have remained barren should be identified on maps or delineated on the Pre- and Post- Irrigation Practices ... maps already provided. This would supply the necessary information for decisions regarding future potential impacts and mitigation practices. Again revegetation efforts have not been extensively tried in the Owens Valley and alternative mitigation should be considered now.

10-66: What were the groundwater levels for Laws wellfield based on (years and test well numbers)? The description of the Laws impact includes, grazing, drop of water table, and water spreading. Mitigation should include reduction in grazing, raising the water table and changing water spreading practices. A map should show the extent of the area in which the water table did not recover during the 1982 runoff year.

10-67: "The primary cause of the loss or reduction of vegetation is, therefore, not a result of the project." Please corroborate this statement by providing pumping figures for Laws wellfield pre- and post- project.

10-68: If impacts in the Big Pine area include cattle grazing, burning and other agricultural practices should the mitigation address these directly?

10-69: The Thibaut-Sawmill impact needs to be address more directly than compensatory mitigation. "Portions of the impacted area will be mitigated directly". EIP found the marsh vegetation to be greatly reduced in extent. The vegetation change is promoting the growth of saltcedar. EIP biologist suggest prevention of saltcedar by maintenance of healthy native vegetation. The EIR further states "Portions of the impacted are will be mitigated directly" but fails to state what or how this will be done.

The potential of reviving the Lower Owens River is an exciting environmental project. It should be considered mitigation of the river and not as compensatory mitigation for springs, irrigation tailwater and the Thibaut-Sawmill impacts. The impacted areas provided a rich habitat dispersed on the valley floor, not confined to the east side of the valley.

10-69: The Overall Valley-Wide Mitigation should account for the loss of 40,000 acre feet per year in E.T. A map should be provided to show the locations of all the listed impacts.

10-70: Please change first sentence. As stated previously 1982 was not an "extremely wet period". It was 9% above normal.

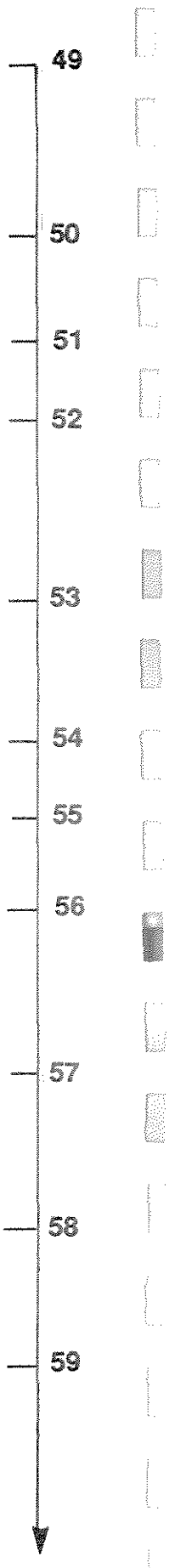
10-70: The Drought Recovery Policy need to have more specific guidelines for implementation. The time period for this policy should be based on maintenance of soil moisture sufficient for the 1984-87 vegetation baseline before pumping for export can be continued. The Policy should prohibit any new production wells until vegetation recovers to the 84-87 inventory level so that adequate monitoring and control sites can be selected.

10-72: If an impact is measurable and attributable to water management practices then it should be automatically considered significant. If this provision is not changed then the only criteria that should be considered is: size and location of impact, if it causes a violation of air quality standards, if it affects human health, and if it impacts rare or endangered species.

Chapter 16 includes changes in recharge facilities. How will these changes affect vegetation. If spreading grounds were used post-project in the Laws wellfield and will now be abandoned shouldn't this be included as an impact since it is a change in water management practices?

Chap. 11 Wildlife

This entire chapter is poorly written. It is difficult to follow the logic behind much of the text, for example the explanation of limiting factors. This chapter is without a bibliography when



references could have been of great value. Does the author contend no scientific references exist?

Scientific names are out of date and common names are inconsistently used.

60

Background and History

11-4: One anecdotal quote is absurd to describe the historical wildlife populations. Please refer to Mr. Tom Hindel's oral comments from the Big Pine meeting and Mike Prather's written comments for references on historical wildlife observations.

11-5: Does the increase of species diversity in the valley mix native and introduced species? Why was species diversity increasing when "intensive hunting was decimating populations of quail, bighorn, and a remnant herd of antelope...".

61

Pre-Project Setting

This section fails to provide an attempt at an adequate description of pre-project setting. A map showing the distribution of wildlife habitat over the valley should have been provided.

11-38: The first statement of the last paragraph needs to be explained. Does this mean the valley is too large for a wildlife biologist to do an adequate assessment of the valley fauna?

11-39: I have a difficult time accepting that no real assessment of impacts to wildlife are possible based on changes of water management practices! Are there no estimates for wildlife populations for a given habitat? The statement on 11-40 implies that weather patterns have a profound effect on wildlife populations. Please substantiate this statement for the Owens Valley for pre- and post-project.

11-40: The proposed mitigation are those ponds which are touted as wildlife habitat but are also popular hunting grounds. How many of the environmental and E/M projects have provide nesting grounds, foraging, and year-around habitat?

62

Present Setting

This chapter does not separate the value of native vs introduced wildlife.

Impacts and Mitigation Measures

11-40: There is no attempt to describe former wildlife populations' use of the unique spring and seep sites. Did or does these wet habitat harbor salamanders?

63

Chap. 12 Air Quality

12-10: Impacts of the project are only divided into groundwater and reduction in irrigated acres. Was there no impact due to changes in surface water practices with increased export?

64

12-5: Fig. 12-1 indicates air quality monitoring is necessary in the Laws area. Since Laws is experiencing vegetation die-off it should be monitored for decreasing air quality.

Chap. 14 Land Use and Economic Development

14-22: Fig. 14-6 of Taxable Retail Sales includes a north arrow and mileage scale.

14-17 (Impact 14-3): Does this mean livestock rates are the same pre- and post-project?

14-24: Lands subject to release by Los Angeles should be addressed in the vegetation and wildlife chapters.

Chap. 16 Ancillary Facilities

16-9: Will the surface recharge facilities already in existence in the Laws wellfield continue to be used during high run-off? Please refer to my comments in the vegetation chapter.

16-14: No additional production wells should be allowed until we are confident the agreement and Green Book work. No wells can be allowed until after the vegetation recovers from the drought to the levels of the 1984-87 vegetation inventory.

16-14: Until we can be confident that the proposed ISB 3-4-5 will not impact Reinhackle Springs none should be considered.

Chap. 17 CEQA considerations

Relationship between short-term uses of the environment and the maintenance of long-term productivity

17-2: The provision for prohibiting groundwater mining as the maintenance of long-term environmental productivity is ludicrous. This allows for the complete eliminating of any outflows, including E.T., spring and seeps, loss to the Owens River, and any outflows from the basin.

17-3: Under Significant Irreversible Environmental Effects the EIR fails to mention the spring and seeps. Since the ET loss from the USGS water budget has not been accounted for it is difficult to assess other irreversible losses.

17-5: The cumulative impact of grazing is not addressed adequately. It is frightening to suggest Los Angeles "continue" their grazing management program. The 1990 Ecosat report noted 2.06 ha/AUM is generally the stocking rate by L.A.D.W.P. Suggested stocking rates for the west are about 4 ha/AUM to 8-9 ha/AUM depending on range conditions.

17-13: The EIR states the '84-87 inventory was during the "healthiest vegetal cover since 1970" after stating there is little quantitative data for pre- 1970 vegetation conditions.

17-13: The public and decision makers in Inyo County need to be assured the methods in the Green Book are adequate for environmental protections now.

**RESPONSES TO COMMENTS
LETTER D98**

RESPONSE D98-1

Text correction noted. The indicated scale is deleted.

RESPONSE D98-2

Please see response A4-32 in Letter A-4 and response B13-45 in Letter B-13.

RESPONSE D98-3

Please refer to response to master comment S-1.

RESPONSE D98-4

Please see Agreement Section X (page B-34) and response to master comment MT-4.

RESPONSE D98-5

Please see response to comment A4-97 in Letter A-4.

RESPONSE D98-6

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE D98-7

Please refer to response to master comment AL-3.

RESPONSE D98-8

Please refer to response to master comment EA-1 for a discussion of pre-project conditions, and VE-5 concerning the Jaques report.

RESPONSE D98-9

Comment noted.

RESPONSE D98-10

Please refer to response to master comments MT-1 and MT-2.

RESPONSE D98-11

Comment noted.

RESPONSE D98-12

Information on irrigated acreages was not separated for Inyo and Mono Counties prior to 1968.

RESPONSE D98-13

Please refer to response C11-5 in Letter C-11.

RESPONSE D98-14

Please refer to response B13-30 in Letter B-13.

RESPONSE D98-15

Please refer to response to master comment VE-1.

RESPONSE D98-16

Please see Green Book page 31. Comment noted.

RESPONSE D98-17

Please refer to response to master comment PD-12 regarding groundwater mining.

RESPONSE D98-18

Please see D98-4 above.

RESPONSE D98-19

Please refer to response to master comment PD-15 for a discussion of release of Los Angeles lands.

RESPONSE D98-20

Comment noted.

RESPONSE D98-21

Comment regarding price block system is noted. Concerning Owens Valley water use, see D98-13 above.

RESPONSE D98-22

The creation of alkaline soil has not been identified as a significant impact in the Draft EIR.

RESPONSE D98-23

No such loss is identified in the EIR.

RESPONSE D98-24

Please refer to response to master comment WA-1.

RESPONSE D98-25

Comment noted.

RESPONSE D98-26

Impacts to vegetation are discussed in Chapter 10, Vegetation, of the Draft EIR.

RESPONSE D98-27

Comment noted.

RESPONSE D98-28

Please refer to response to master comment WA-1.

RESPONSE D98-29

Comment noted.

RESPONSE D98-30

Comment noted.

RESPONSE D98-31

The Lower Owens River Project is acceptable mitigation. Please see response to master comment MT-6. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE D98-32

Please refer to responses to master comments PD-5 and WA-4.

RESPONSE D98-33

Comment noted.

RESPONSE D98-34

The median is 4.3 inches. Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR Report.

RESPONSE D98-35

Comment noted. LADWP disagrees with this description. Please see response D21-25(3) in Letter D-21.

RESPONSE D98-36

Comment noted. Please see D98-2 above.

RESPONSE D98-37

Comment noted.

RESPONSE D98-38

Comment noted.

RESPONSE D98-39

Comment noted. Please see D98-2 above.

RESPONSE D98-40

Please refer to response to master comments EA-1, VE-5.

RESPONSE D98-41

Comment noted.

RESPONSE D98-42

Comment noted.

RESPONSE D98-43

Please see Appendix A-1.

RESPONSE D98-44

Please refer to response to master comment EA-1.

RESPONSE D98-45

Please see Appendix A-1 to this Response to Comments document.

RESPONSE D98-46

Please refer to response to master comments VE-4 and VE-5. Please see comment D77-35 in Letter D-77. Please see Figure 9-3 on page 9-11 of the Draft EIR. Regarding revegetation, see response to master comments MT-1 and MT-2.

RESPONSE D98-47

Please see impact 10-18 on page 10-65 of the Draft EIR concerning impacts. Also see mitigation measure for impact 10-14 on page 10-62 of the Draft EIR. Concerning springs, see master comments PD-5 and WA-4. Concerning the Lower Owens River, see response to master comment MT-6.

RESPONSE D98-48

Please refer to response to master comment VE-2 and MT-2.

RESPONSE D98-49

Comment noted.

RESPONSE D98-50

This information is available at the Inyo County Water Department.

RESPONSE D98-51

Please refer to response to master comment PD-14.

RESPONSE D98-52

Please refer to response to master comments MT-6 and MT-3.

RESPONSE D98-53

Please refer to response to master comment MT-3.

RESPONSE D98-54

Please refer to response to master comment VE-4.

RESPONSE D98-55

Comment noted.

RESPONSE D98-56

Please refer to response to master comment PD-17.

RESPONSE D98-57

Please refer to response to master comment PD-18.

RESPONSE D98-58

Please refer to response to master comment AF-1.

RESPONSE D98-59

Please see bibliography to Wildlife chapter in Appendix C-3. Also, see updated list of animal species in Appendix C-4.

RESPONSE D98-60

Please refer to response to master comment WL-2. Hunting, which may have led to a decline in numbers of certain species, did not affect overall species diversity. Diversity increased as a result of introduction of new species and natural range expansion of many bird species.

RESPONSE D98-61

Please refer to response to master comments EA-1 and WL-4. Please see Chapter 11, page 11-38, paragraph 4 and page 11-39, paragraph one for an explanation of the statement cited. The following environmental and E/M projects provide wildlife habitat: Farmers Pond, Buckley Ponds, Saunders Pond, Klondike Lake, Tule Elk Field, Seeley Spring Pond, Calvert Slough, Little Blackrock Spring, McNalley Ponds, Lower Owens River, Independence Pastureland and Springfield, Laws-Poleta Native Pastures, and the Richards and Van Norman Fields.

RESPONSE D98-62

Comment noted. Salamanders have been recorded in the canyons above the valley floor, but the authors are unaware of any reports of salamanders on the valley floor.

RESPONSE D98-63

A change in irrigation practices is a change in surface water practices.

RESPONSE D98-64

Comment noted.

RESPONSE D98-65

North arrow on Figure 14-6 is deleted. Regarding livestock rates, see data presented in Letter B-8. Lands released by Los Angeles will be subject to subsequent CEQA documentation.

RESPONSE D98-66

Please refer to response to master comments AF-1, AF-2 and WA-4.

RESPONSE D98-67

Please refer to response to master comment PD-12 regarding groundwater mining. Please refer to response to master comment VE-4 for a discussion of the reduction in evapotranspiration. Please refer to response to master comment PD-14 for a discussion regarding grazing management. Also, please see response A4-97 in Letter A-4. Please refer to response to master comment PD-17 regarding the drought recovery policy.



PUBLIC TRANSCRIPTS

Letter E1

December 4, 1990, Town Hall, Big Pine, California

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Public Meeting

Draft Environmental Impact Report

WATER FROM THE OWENS VALLEY TO SUPPLY

THE SECOND LOS ANGELES AQUEDUCT

Tuesday, December 4, 1990

Town Hall, Big Pine, California

Facilitator: Lea Ann King

Senior Vice President: John Davis

Project Manager: Joel Sabanorio

Reported by: Diane Alexis Hart, CSR No. 2367

ORIGINAL



1 Public Meeting

2 TUESDAY DECEMBER 4, 1990

3 Town Hall, Big Pine, California

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6 MS. KING: All right.

7 It's your turn. Let me go over the procedure that
8 we'll be following.9 Meanwhile, I still only have two people who have
10 -- after you heard them talk, if you want to now rush to
11 the back and have -- if you have some questions, do so.12 All right. What we'll do is follow in order the
13 people that have signed up and would like to speak. The
14 microphone is right here to my right, so it would be a
15 matter of coming up, and I'll just call off names.16 So that will mean we don't have to have a whole
17 lot of people standing in line. You'll just come up when
18 your name is called.19 Now Diane Hart is sitting right here and she's
20 going to be taking down all your words and comments. As
21 I mentioned before, it's a little bit like having your
22 very own secretary to take down what you would like to
23 comment upon.24 Okay. Now I would just like to say that we'll
25 break after an hour, if we go that long, and there are

1 that many comments, so that Diane can have a break. Then
2 we will resume as long as you have comments that you'd
3 like to make.

4 I would also like to add that the deadline has
5 been extended. In the publication it says that the last
6 that you can input is January 4th and it's been extended
7 two weeks, that's because of the holidays and the fact
8 that you might be distracted and still want to get around
9 to making comments.

10 So my calculations take that to January 18th. Is
11 that correct?

12 MR. IRWIN: Not quite. The Board of Supervisors
13 haven't approved it. But they will hear it next
14 Tuesday --

15 MS. KING: The extension still needs to be
16 approved?

17 MR. IRWIN: -- at the meeting next Tuesday and
18 they will consider it.

19 MS. KING: The extension is being considered and
20 it will be next Tuesday you'll find out for sure.

21 MR. IRWIN: Okay.

22 MS. KING: When you come up to the microphone, if
23 you would give your name and your town, again, for Diane
24 so that she can get that down.

25 All right. The first person I have is Tom Hindel

1 or Heindel.

2 MR. HEINDEL: Yes.

3 MS. KING: And second will be George Derrick, so
4 you can be ready.

5 We're also asking that you kind of keep your
6 comments around five minutes or so.

7 MR. HINDEL: She saw all the papers I had here.

8 Thank you very much.

9 Good evening, ladies and gentlemen, friends. My
10 name is Tom Hindel and I speak for my wife Jo Hindel. We
11 were teachers here in Big Pine through most of the '70's
12 and through -- from the late '70's to last year, we
13 taught in other parts of the world, South America and
14 Saudia Arabia.

15 We just came back and retired and we've spent
16 most -- most of our spare time when we were here before
17 doing research on the birds of Inyo County.

18 We're quite interested in all aspects of the
19 environment.

20 We have been working for the last year in the
21 field, virtually every day, studying the birds of Inyo
22 County. We also have spent a great deal of time at the
23 U.C.L.A. Library and University of California at Irvine
24 Library doing literature searches to find out what has
25 been written about the birds of Inyo County.

1 There's some really good things in the EIR. We're
2 all concerned, I think, about the vegetation not
3 deteriorating and so this looks like if this is followed
4 up on that this will be a good step, that vegetation will
5 not be allowed to become more zurich or dry as water is
6 taken.

7 I'd like to address the remaining time I have on
8 comments about the birds.

9 The bird section in the report is just horrible.

10 I gave a deposition in the '70's on the EIR and
11 talked about how bad that that one was, and, in all
12 honesty, it hasn't gotten much better.

13 Now the birds aren't really the important thing;
14 the vegetation is. But why devote time to the birds in
15 there if so many things about the birds are going to be
16 incorrect?

17 They start off with a quote of the Wheeler
18 expedition that has no scientific basis at all.

19 They say that back in 1870 a naturalist in Fort
20 Independence stated that since there were very few trees
21 in the Owens Valley there were almost no birds at all
22 worth speaking about.

23 That's a ridiculous scientific statement.

24 Twenty years later A.K. Fisher led a study here
25 and reported a hundred and thirty-seven different species



1 of birds.

2 The Wheeler expedition naturalists said most of
3 the birds were hawks that lived up in the canyons.

4 This is straight from the EIR.

5 Hawks have to eat something and we have this food
6 pyramid and so birds -- there supposedly were not birds
7 here because there were no trees.

8 Sparrows that live on the ground, and there are
9 dozens of them here, different species, they don't care
10 that much about the trees.

11 Many, many other birds could care less if there
12 were trees here.

2 13 It points out the bias of the time.

14 The people that were in the EIR doing the
15 research, why didn't they go to the A.K. Fisher
16 expedition of 1891?

17 Just twenty-one years later there were a hundred
18 and thirty-seven species they reported right here in the
19 Owens Valley, while in 1870 supposedly there were
20 virtually no birds because there were no trees.

21 Many birds are not interested in trees.

22 It has no scientific basis at all.

3 23 The EIR is very ambiguous in the bird section.
24 They use terms like common, uncommon, rare. They don't
25 define those terms.

1 Another area of ambiguity is they say things like
2 what -- what is the geographical limits of their
3 discussion are equally ambiguous.

4 They talk about owls, for example, that only occur
5 at very high elevations as here in the Owens Valley.

6 I'd like to know where they got their information.

7 Also, incidentally, there's no bibliography.

8 I've taught science now for twenty years and if
9 any of my students in junior high or high school turned
10 something in without a bibliography, I guarantee they'd
11 get it back in a hurry.

12 It's as if the people that wrote the EIR were not
13 aware as, for example; 1949, Granillian Miller, Birds of
14 California; 1974, Arnold Small, Birds of California;
15 1981, Dunn and Garrett, the Birds of Southern California,
16 which covers all of Inyo County.

17 There are contradictions within the report. It's
18 as though two people wrote it and they didn't realize
19 what the other guy was saying.

20 For example, on the section on woodpeckers the guy
21 says Nuttal's woodpecker's rarely been seen in the Owens
22 Valley.

23 Back in the appendix it's listed as a fairly
24 common year-long breeder.

25 Now that's contradictory if it's rarely seen.

1 Now some birds could be rarely seen like owls, for
2 example, and yet be common because they're out at night
3 and most of us are not.

4 But woodpeckers just hang there on the sides of
5 the trees, and so woodpeckers are not hard to see.

6 So in the front of the book it says Nuttall's
7 woodpecker's rarely seen. Back in the appendix it says
8 common, fairly common, year-long resident.

4 9 Something's wrong with that, guys.

10 The EIR lists birds that have never been recorded
11 in a scientific literature in the Owens Valley.

12 On the other hand it does not list birds that do
13 occur in the Owens Valley and this -- and these birds
14 that I'm talking about are in the scientific literature.

15 They're not just something that some guy down the
16 street saw and never reported them.

17 They used incorrect names. They give birds names
18 that don't exist.

19 They give the wrong status and distribution. They
20 say common yellow throat is an uncommon migrant.

21 Every day during the summer when I go down to the
22 Owens River, that bird is down there singing and
23 breeding, and it's a very common bird here.

24 These are mistakes that there's just no excuse
25 for.

1 There is a lack of scientific vigor throughout the
2 bird section of this report.

3 There's a bird called the yellow-rumped warbler.
4 It used to be to be called Audubon warbler and the one
5 back east is Myrtle warbler. Both are now called
6 yellow-rumped warbler by scientists.

7 The birds listed here are a yellow bumped warbler
8 and Myrtle warbler. It's the same bird.

9 They do that with junco, Oregon junco and dark
10 eyed junco. Same bird, ladies and gentlemen. Same bird.

11 There is just so much work that needs to be done.

12 And, again, the plants are the important thing and
13 the birds will follow, but let's not put them in there if
14 we're not going to deal with them seriously.

15 In short, once again, if a student of mine turned
16 this in I'd send him back to do some more work on it.

17 Thank you.

18 MS. KING: Thank you, Tom.

19 And John and Joel would like very much to talk to
20 you about more of the details that you have. So we've
21 got your name and address right here.

22 Thank you.

23 George Derrick.

24 Is there anyone else who's ready to follow him?

25 I don't have another.

1 Okay.

2 MR. DERRICK: My name is George Derrick. I live
3 in Big Pine.

4 Well, I have little to say. I only have three
5 sentences. I guess I haven't done my homework,
6 apparently.

7 I was reading through the EIR. I was concerned on
8 a number of occasions with the lack of documentation in
9 the areas of impacts, when impacts were determined to be
10 insignificant that no documentation was provided to base
11 that conclusion on.

12 One area that I was specifically interested in was
13 in subsidence.

14 And if I can give you an idea, sort of, when you
15 pick up the volume it just -- in order to find the area
16 where subsidence is covered, you're sort of faced with an
17 immediate problem. But if you're familiar with the
18 entire thing, you can probably find your way into at
19 least one or two sections where subsidence is mentioned.

5 20 There are two impacts, eight dash one and nine
21 dash ten, that mentions subsidence.

22 In both cases it's dismissed as being
23 insignificant and it says based on available data
24 subsidence should not be expected to occur.

25 But there's no indication as to what the available

1 data was, and so, short of going through the entire
2 bibliography at the end of the section, and I don't
3 really think there was anything in section eight in the
4 bibliography that addressed subsidence, so I'm not sure
5 of who did the work on subsidence.

6 I'm not even saying that it should be there. You
7 know that that should be included in the document like
8 this, but I, and in a number of cases, I would have
9 appreciated just one footnote that sort of would have led
10 me into at least -- into the area where, you know, where
11 some thought process could occur that -- to justify that.

12 And that was generally the -- that was generally
13 the only area that I had a problem with. So that's --
14 thanks for a nice document. I appreciate it.

15 MS. KING: All right. I'm out of my sheets of
16 paper.

17 Is there anyone else that would like to speak?
18 You can just come right up and state your name and your
19 town.

20 MR. IRWIN: Wait until you get to Bishop.

21 MS. KING: That's next week, is Bishop.

22 MS. KING: Do you have a question or would you
23 like to come up?

24 MR. GORHAM: Sure.

25 MS. KING: Good.

1 MR. GORHAM: My name is John Gorham. I am a
2 resident of Big Pine and I'm on the volume two here, page
3 B-26, referring to well turn on-turnoff provisions.

4 Basically, or specifically, I should say, I am
5 referring to a paragraph here that details how wells
6 should be turned on and turned off in relation to soil
7 water in the monitoring site.

6 8 It says: A well that has been turned off may be
9 turned on to supply water for mitigation in the area of
10 the monitoring site to which it is linked if there is no
11 other mitigation available.

12 The way I interpret this is, okay, say a well is
13 turned off because of a projected deficit in soil water
14 moisture, it says later this well may be turned on to
15 mitigate that deficit.

16 My question is, how long would that well be on?
17 For five years in a drought or what?

18 Would the well, once the well brought up the soil
19 water moisture to that point where the available moisture
20 for plants equalled the moisture in the ground, could
21 then the well be turned on for pumping for export?

22 I'm sure that's not what it means, but I just
23 wanted to clarify that that was kind of confusing, I
24 thought.

25 So I just didn't -- basically I had visions of --

1 of soil water deficit occurring, then the wells turned
2 off but then is turned on later to mitigate that soil
3 water deficit and it is mitigating it fine on the
4 surface, but the ground water's being pumped down all the
5 while below the rezone, but the plants are alive because
6 this well is mitigating.

7 So I just wondered would that go at infinitum
8 while the water table is sinking or what?

9 MS. KING: All right. That question will be
10 answered in the final draft of the EIR.

11 MS. KING: Okay. Anyone else had any thoughts
12 come to mind while -- now that you got all the way here?

13 John says that if you don't have anything more
14 that you'd like to say, that he will make a few final
15 comments.

16 MR. DAVIS: Really, I just wanted to make a couple
17 of final comments about where we go to from here.

18 The key part of the process is that the document
19 that you see today is a draft; that's the whole point of
20 the process.

21 It's not the final and so there are imperfections.
22 Some of them are going to be pointed out to us, as they
23 have been tonight and they will be in the other meetings.

24 It's the purpose of the process and it will be our
25 intention to try to perfect the document once we've

1 received all the comments, answer all the questions.

2 If there are errors of fact, we will try to
3 eliminate them. That's what -- that's where we go from
4 this point on out.

5 One proviso on that, though, is that the law,
6 CEQA, doesn't require that every topic be examined
7 exhaustively, and I'm not, in this case, trying to make
8 any kind of excuse. If we made errors in the report, I
9 want to correct them.

10 But it also is true that the law doesn't require
11 that we sort of be examined in a great deal of detail,
12 every issue that might come up.

13 There's a sort of rule of reason that the Court
14 uses when it looks at these reports, and if there was not
15 such a rule of reason then every -- every project and
16 every EIR on a project would probably get hung up in many
17 years of scientific investigation because, frequently, we
18 don't know all the answers.

19 But if we need -- if we're going to make any sort
20 of progress, we have to make our best judgment based on
21 the information that we do have, so there are some limits
22 on what we can do.

23 On the other hand, as I pointed out, I do want to
24 eliminate any errors and perfect the document before it's
25 made public again.

1 If there are no further comments, then --

2 MR. IRWIN: John, I have one. Could you explain
3 to the public how they could be assured that their
4 comments are going to be received and addressed?

5 MS. KING: Certainly. I will do that.

6 The -- we want to be sure that an enormous amount
7 of information moves back and forth in the course of
8 these projects, and we want to be absolutely sure that
9 any comments that we might receive from the public
10 actually end up in our hands and we are able to respond
11 to them.

12 Consequently, we set up an arrangement whereby if
13 anyone writes to us, and the comment letters should be
14 directed to me and my address is in the report, we'll
15 write back to them basically a receipt letter letting
16 them know that indeed their comment has been received.

17 So if you write something to us and you don't get
18 a response, then please give me a call or write again or
19 something so that we can be sure we have indeed
20 connected.

21 Also, there's a possibility that individuals will
22 bring us comments in the course of the next few days of
23 meetings rather than mail them.

24 If you do that, we'll write you a receipt so that
25 there is some evidence that that indeed took place.

1 Thank you very much.

2 MS. KING: Last chance.

3 All right. Thank you all very much for coming
4 out.

5 Do remember that tomorrow is the American Legion
6 Hall in Independence and then on the 11th and 12th next
7 week, Bishop and Lone Pine, respectively.

8 So you can keep watching the printed materials and
9 keep up on what's happening at the other locations if
10 you're not able to go.

11 Thank you very much.

12 (End of proceedings.)

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1 CERTIFICATE OF OFFICIAL SHORTHAND REPORTER

2 State of California)
3 County of Inyo) ss.
4)

5 I, DIANE A. HART, hereby certify that I am a
6 Certified Shorthand Reporter and that I recorded verbatim
7 in stenotype the proceedings had Tuesday, December 4,
8 1990, Public Meeting on the Draft EIR on the Owens Valley
9 Water Management Project, completely and correctly to the
10 best of my ability; that I have caused said stenotype to
11 be transcribed into typewriting and the foregoing 15
12 pages constitute a complete and accurate transcript of
13 said stenotype notes taken in the above-mentioned
14 proceedings.

15 Dated: Monday, December 10, 1990.

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DIANE ALEXIS HART, CSR NO. 2367

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**RESPONSES TO COMMENTS
LETTER E1**

RESPONSE E1-1

Please refer to response to master comment WL-2 for discussion of historical references applicable to wildlife in Owens Valley.

RESPONSE E1-2

The list of birds was revised in response to this comment. Please refer to Appendix C-1 to this Response to Comments document.

RESPONSE E1-3

Please see response to E1-2 above, and refer to Appendix C-3 for a bibliography applicable to wildlife in Owens Valley.

RESPONSE E1-4

Please refer to response to comment E1-2 above.

RESPONSE E1-5

Please refer to response to master comment G-1 for discussion of subsidence.

RESPONSE E1-6

Please refer to response to master comment PD-6 for a discussion of the issue of unilateral well turn on/off.



Letter E2

December 5, 1990, American Legion Hall, Independence, California

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Public Meeting

Draft Environmental Impact Report

WATER FROM THE OWENS VALLEY TO SUPPLY

THE SECOND LOS ANGELES AQUEDUCT

Wednesday, December 5, 1990

American Legion Hall, Independence, California

Facilitator: Lea Ann King

Senior Vice President: John Davis

Project Manager: Joel Sabenorio

Reported by: Diane Alexis Hart, CSR No. 2367

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Public Meeting
Wednesday, December 5, 1990
Independence, California

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MS. KING: Now, before I go on to describe how we're going to proceed, do I have anymore of these?

Okay.

We really do want to hear from you. All this means, we're just going to do it in an organized way, which is that I can tell what order you're going so you know when the time is for you to speak.

Okay. All right.

Now I would like to explain to you -- now people have said to you, I have and Joel and John have said, we want to hear from you.

Well, the CEQA provisions call for written responses, but when you come to these meetings and you have a chance to talk, it's almost really like writing your letter because we have Diane Hart, who is a court reporter, and she will take down everything that you say, which is sort of an equivalent to a letter, and you will get a response and it will be in the EIR just as if you had written a letter.

And if you want to write a letter you can do that,

1 too. But, in fact, what you're doing tonight when you
2 make a comment or you respond, you are incorporating your
3 requests, suggestions and concerns in the EIR for the
4 final just as if you were writing a letter.

5 So if you're one of those efficient people that
6 would like to do it just by talking tonight's your night.

7 When you come up and identify yourself for Diane,
8 please give your name and city so that she can take that
9 down.

10 Also, we're asking if you take about five minutes
11 that would be wonderful.

12 And if you have any questions that are, you know,
13 very specific or for clarification, John and Joel can
14 answer them. They're kind of a resource as well.

15 All right. Now we are going to start.

16 By the way, I was just going to tell you about the
17 deadline. The deadline that's published is January 4th,
18 but we'll find out next Tuesday if the Board of
19 Supervisors extend that deadline for a response to the
20 EIR which would take it to the 18th.

21 That's a look at the concession of the fact that
22 the holidays are a very busy time and you may need some
23 extra time afterwards to sit down and write what your
24 comments are.

25 All right. First we're going to start with Thomas

1 Lipp and the second person will be Stan Hale.

2 MR. LIPP: My name is Tom Lipp. I live in
3 Independence and, if it's all right, I'd like to stand
4 here. The book is sort of heavy to flop around.

5 MS. KING: Just so Diane can hear you.

6 MR. LIPP: I would like to start by saying that
7 I'm a staunch supporter of the concept of this agreement.
8 It won't sound like it as I go on, but I am.

9 I have a number of problems with EIR and the
10 agreement. I'd like to address two of them this evening.

11 One of them is a very brief mention in chapter
12 five on page four where they're talking about type C,
13 type D, type E vegetation.

14 There's a statement that one management type will
15 not be allowed to change to a lower management type and
16 they give the example of a B to an A.

17 I can find nowhere else in the EIR that says that
18 an A couldn't go to a B. That would be acceptable and a
19 B to a C.

1 20 But my question is could a D go to an E, and I
21 would find that unacceptable that a marsh or wetland
22 could be made into a tree lot.

23 As a general statement, before I start on the main
24 thing, I want to talk about tonight is the Lower Owens
25 River Project which mitigates a substantial amount of

1 damage which has been done, and as I understand it
2 potential damage that might occur.

3 It's my feeling in 1970 the Owens River had a
4 substantial flow past the intake to the aqueduct and then
5 down river to the Owens River.

6 It was during the '70's the Owens River was dried
7 up.

8 I believe that either this EIR or a separate EIR
9 must address drying the Owens River up, and my main
10 motive this evening will be that rewatering the Owens
11 River may mitigate drying the Owens River up and nothing
12 else.

13 On page five nineteen, Lower Owens River Project
14 is addressed at the bottom.

15 It says water releases began in 1975 to provide a
16 year long minimal flows in the lower Owens River will --
17 releases to Twin Lakes, Billy Lakes, Tibal (phonetic)
18 Ponds, et cetera, et cetera. This is misleading in that
19 the flows were intermittent at best.

20 It goes on to say that this established a warm
21 water fishery now incorporated in the lower Owens River
22 end project. There is no warm water fishery in Tibal
23 Ponds and there is no warm water fishery in the lower
24 Owens River.

25 On page five twenty one, again at the bottom of



1 the last paragraph, Owens River Project, this is pretty
2 much the same point that I made in the last place that
3 eighteen thousand -- eighteen feet a year supporting a
4 new fishery.

5 At best, this is confusing because it doesn't
6 exist.

7 Then on page -- chapter seven page eight, the ten
8 one under vegetation flows in the Owens River below the
9 intake were altered. So here it's at least admitted that
10 flows were stopped at the intake with no significant
11 impact on vegetation.

12 That's incorrect.

13 Certainly it's obvious that all aquatic plants in
14 that dewatered section of the Owens River were
15 significantly impacted, and I believe also riparian
16 vegetation was severely impacted on that stretch of the
17 river.

6 18 Okay. On page seven twelve. Chapter seven, page
19 twelve, here, as a general statement addressing springs
20 in at least the Owens Valley from Poverty Hills south,
21 with which I'm familiar, was confusing or omitted.

22 Here there's a mention that the springs will be
23 mitigated by the Lower Owens River Project.

24 Another place in here it says that it's estimated
25 less than one hundred acres of spring were impacted.

1 I question that.

2 The last paragraph there in addition, vegetation
3 is dependent on a supply of water from a spring,
4 primarily type D, will be maintained in order to avoid
5 significant change or decrease as provided by the Green
6 agreement. The Green Book unaddressed here is surface
7 water.

8 Certainly invertebrates and fish and an awful lot
9 of shore birds depend on surface water, so while certain
10 riparian vegetation may not be significantly impacted,
11 removal of surface water would have a significant impact
12 on animal life in the area of the streams.

13 On page seven sixteen, there was an errata section
14 on this, and if I understand the errata correctly, I
15 disagree with the conclusion.

16 It says portions of the Lower Owens River Project,
17 including Tibal Ponds, are in this area, thus portions
18 the impact area. It's addressing Tibal Ponds will be
19 mitigated directly.

20 However, for much of the impacted area, mitigation
21 will be in the form of compensation through the Lower
22 Owens River Project restoration of wetlands, meadows and
23 riparian vegetation.

24 I've already said that I think the dewatering of
25 the lower Owens River needs to be addressed specifically

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9



1 in this EIR or in a separate EIR, and you can't mitigate
2 a spring area with something that you have to mitigate
3 anyway.

4 Number one.

5 Number two. I don't find it satisfactory
6 mitigation to mitigate with riparian river vegetation
7 with a wetland. They're two vastly different
8 environmental types and the animals and plants that exist
9 on both of them are very different.

10 And in closing, I would just like to say another
11 problem I have with the Lower Owens River Project, if I
12 understand correctly, the project could be terminated at
13 any time by mutual agreement between the Los Angeles
14 Department of Water and Power and Inyo County Board of
15 Supervisors.

16 I find that unacceptable. Can't have a part-time
17 river with a part-time fishery.

18 I also think that exactly what the Lower Owens
19 River Project is going to be is not very clear, and I
20 understand that a separate EIR is going to have to be
21 done on it and a lot of planning will have to be done and
22 you can't be terribly specific, but I think exactly what
23 that project is is so vague that at this point I couldn't
24 make a decision on the agreement or the EIR based on what
25 I know about what actually is going to be the Lower Owens

1 River Project.

2 Thank you.

3 MS. KING: Thank you.

4 And after Stan Hale, Kathy Noland.

5 MR. HALE: I'm Stan Hale. I'll pass. I'll make
6 my remarks in writing.

7 MS. KING: While Kathy's coming up, I'll just tell
8 Mary she's after Kathy.

9 MS. NOLAND: Well, I just wanted to present my
10 concern that the existing and proposed mitigation for the
11 Lone Pine area and southern Owens Valley in general, but
12 specifically the Lone Pine area, I feel is inadequate to
13 compensate for the current impacts or the last twenty
14 years of current impacts that are occurring in Lone Pine
15 which are due to the loss of the surface water combined
16 with the pumping that is occurring in the town right now,
17 and that would be from the town well which is supplying
18 water to the town and, in addition, to delivering water
19 to the aqueduct.

20 And part of the reasons that I think that the
21 impacts have been so great in the Lone Pine area from the
22 diversion of the surface water and the pumping is because
23 the aqueduct in the lower Owens Valley goes closer to the
24 mountains and it is catching the creeks much earlier in
25 their descent down to the valley than in the rest of

1 the valley farther to the north, and it's -- you're not
2 getting that recharge that you get in the northern Owens
3 Valley.

4 So I think this has become a particularly severe
5 impact in the Lone Pine area.

6 And I feel that these -- this problem should be
7 resolved whether or not the mitigation is, you know, what
8 level the mitigations, you need to have -- it should be
9 resolved before any additional water is exported from the
10 Lone Pine area. And in that -- what I'm referring to in
11 this case is the proposed production well in the Lone
12 Pine area.

14 13 The -- another point that I'd like to make is in
14 general on the siting of new production wells in the
15 valley, in the Owens Valley.

16 I think that you should, or a survey should be
17 conducted in the whole valley first to identify suitable
18 sites for new wells and it should use -- the survey
19 should be using criteria that's based primarily on
20 environmental considerations, not just proximity to the
21 aqueduct.

22 And before a well site can be properly evaluated,
23 a ground water modeling should be done first in that
24 area, and I believe this has not been done in the Lone
25 Pine area at this time.

1 And another point, also, is a monitoring plan for
2 each well site should be presented as part of the siting
3 process, and I don't believe this has been done in the
4 Lone Pine area.

5 And that's all I had. Thank you.

6 MR. DAVIS: Thank you, Kathy.

7 MS. KING: All right. I have Mary DeDecker, and
8 after that Jack Pound.

9 MS. DeDECKER: My name is Mary DeDecker. I live
10 in Independence. I lived here since 1935.

11 I've been very supportive of the concept of this
12 water management plan and I've read the EIR with interest
13 and I'll write a letter giving a lot more than I can give
14 here tonight.

15 I'll give all my points of concern and suggestions
16 with page references, but tonight I'd like to say that
17 perhaps my most concern -- most obvious concerns are with
18 the mitigations part.

19 I deeply resent the word "enhancement" used with
20 "mitigation" because I think that's an excuse for
21 cosmetic things that have no real mitigation value, and
22 we've already seen some of that, and I don't think we
23 want anymore of it.

24 I think mitigation measures should be truly
25 mitigation measures, which would apply to the area that

1 has been impacted and has some significant effect.

2 I'm very supportive of the Lower Owens River
3 Project. I think it's a wonderful idea that should have
4 been done long ago, and, on the other hand, I can agree
5 with Tom Lipp.

6 There should be a separate EIR on that and I
7 certainly don't want it used as a blanket to cover
8 mitigation for other impacts.

9 I don't think that's -- I think that's entirely
10 inappropriate, especially the springs. I have a very
11 deep feeling for the springs of Owens Valley and I think
12 some of the springs, destruction is one of the most
13 tragic things of the water issues, and I don't want to
14 see any more destruction of springs or I don't want to
15 see some other project used for mitigation as spring
16 destruction.

17 I don't think we should lose a single spring from
18 now on, because most of them have already been destroyed
19 and they're very special habitats that have never been
20 brought out properly, but they are, and -- and nothing
21 else can take their place.

22 Once they're gone, they're gone.

17 23 I'll -- another thing that I'm concerned about are
24 the rare plants, of course.

25 I don't think the EIR properly addresses the rare

1 plants, the situation they're in now, and what's been
2 done to protect them or safeguard their future.

3 I think there should be some kind of inventory and
4 statement of what is -- has been done or is going to be
5 done, because I'm very critical of the way that's been
6 handled.

7 I don't think the callecordus (phonetic) has been
8 mentioned at all, and I think it should be. And there's
9 very little habitat for that left, or very little of the
10 plant left even though habitats would be suitable if they
11 were managed properly.

12 Another criticism I have is it says that any
13 listed plants will be protected or will be managed for
14 protection.

15 I'd like to see that done.

16 And, also, I would like to see the statement added
17 that -- that Los Angeles will not, in the future, make
18 any move to keep a plant from being listed. And this has
19 been done.

20 If a plant -- if listed plants are protected, we
21 have no protection against their movements to keep plants
22 from being listed and that's pretty serious, I think.

23 I'll cover all the rest of these things when I
24 write a letter and have more time.

25 Thank you. I appreciate all your efforts and I'm

1 looking forward to the revised EIR.

2 MS. KING: Thank you, Mary.

3 Now Jack is following Mary.

4 Is there somebody that would like to follow Jack,
5 because he's the last one I have?

6 Jack.

7 MR. POUND: Since you gentleman are here -- my
8 name is Jack Pound. I'm from Independence.

9 Since you gentleman are here, you said you could
10 be a resource. I would like to ask at least a couple
11 questions.

12 I'm sorry, I forgot your name.

13 MR. SABENORIO: Joel.

14 MR. POUND: You mentioned something about the
15 recharge of the Independence area. There were some
16 problems, as far as that is concerned, in the
17 Independence well field.

18 Could you expand on that a little bit?

19 I don't quite understand why is it so much
20 different than say the Laws and Big Pine areas?

21 MR. SABENORIO: Jack, I don't think I said
22 anything about the recharge being different.

23 What I said was that we concluded that the
24 vegetation around the Independence well field were
25 severely impacted by ground water pumping. It was a very

1 straight forward analysis to conclude that.

19

2 MR. POUND: And so it is possible for that to be
3 recharged or to be brought back to some extent?

4 MR. SABENORIO: The EIR identifies two spring
5 areas in particular for on-site mitigation attempts, one
6 being Hines Spring the other being Rynackle (phonetic)
7 Spring.

8 The others, Big Sealy Springs and Fish Springs,
9 were concluded to be infeasible because of the nature of
10 the soils and vegetation and climate, and the position
11 has been offered that the fish hatchery offers -- serves
12 as a form of mitigation, not necessarily for
13 environmental damage there, but again as a form of
14 mitigation of the damage that's done there.

20

15 MR. POUND: Well, I guess since I do live in
16 Independence, part of my concern is the Independence well
17 field, and I feel like in this agreement from 1990 on,
18 the whole idea of mining -- underground mining water, it
19 says here that the -- that the -- will not exceed total
20 recharge to the same -- the mining will not exceed total
21 recharge to the same well field area over the same
22 period.

23 That obviously has not been the case in the past
24 twenty years, and I would like to see at least some
25 recharge in the areas that have been deeply affected,

1 especially Independence well field, perhaps brought back,
2 if that is indeed what you plan on doing, you know, from
3 here on out, that there will be no more water taken
4 without it being recharged.

5 Another comment I had was as far as recharge
6 facilities is concerned, I would like to see that, you
7 know, put in the Independence area and other areas, too,
8 that, you know, if it indeed does work and underground
9 water can be recharged back to levels prior to mining or
10 underground pumping, then I would like to see that done
11 more than just saying the Laws and Big Pine area.

12 Another part that is the, and I guess this isn't
13 going to be addressed too well in this particular EIR,
14 but in -- perhaps in the future, is the transfer of water
15 systems to the individual towns.

16 I have some reservations just because I feel, you
17 know, Los Angeles has got a lot of expertise and is
18 certainly qualified to provide water to the town, and I'm
19 not sure transferring them to the county is such a good
20 idea.

21 I understand the reason just to keep water rates
22 low and perhaps something could be worked out that, you
23 know, Los Angeles says, you know, we'll keep the rates
24 low but we'll go ahead and take care of the water system.

25 I have some problems with Inyo County taking care

21

22

1 -- taking over the water system.

2 Thank you.

3 MS. KING: Would you like to talk now?

4 MR. HALE: Yeah. Stan Hale.

5 A point I was going to bring up --

6 MS. KING: All right.

7 MR. HALE: My name is Stan Hale from Independence,
8 and the one point I want to make at this time is I'm
9 totally against the county taking over the Independence
10 town water system from DWP.

11 I don't feel we have the resources to properly
12 maintain it. We don't have the money to hire anybody on
13 a full-time basis. We don't have the money to buy the
14 equipment, considering that a backhoe can cost -- or
15 major piece of equipment can cost twenty or thirty
16 thousand dollars, plus the maintenance of it, and I don't
17 really see what giving the town water system to the
18 county has to do with this whole EIR process in the first
19 place.

20 I feel like that's what DWP insisted on in return
21 for some things they're giving us that we like.

22 I don't think DWP wants those systems. I don't
23 think they want to touch them with a twenty foot pole and
24 I don't think we should either.

25 And I'd like to point out that by, admittedly,

1 narrow votes, twice the citizens of Independence have
2 turned down taking over the water system.

3 MS. KING: Now that's the end of the slips of
4 paper that I have, but I would certainly love to hear
5 from anyone else that would like to speak.

6 Come on up.

7 MR. NOLAND: My name is Tom Noland. I'm from Lone
8 Pine and I'd like to comment on the new proposed well in
9 Lone Pine.

10 In the document it states that there would be
11 little adverse impact expected from an additional well in
12 the Lone Pine area.

13 I don't believe this could be the case.

14 I seen the effect from the Lone Pine well that's
15 already there, and I seen this because I work on a ranch
16 there and I irrigate the lands that are directly below
17 their well.

18 I've seen the changes -- well, as little as I can
19 remember from the '50's, the '60's on into the '70's and
20 how there's been a regression of the -- of the plants
21 that grow in the irrigated meadows and adjacent to the
22 irrigated meadows there.

23 In the document it states that there would be
24 little -- little effect because of the fault line, and
25 that may be true that the fault to the east may not be

1 affected by their well.

2 The mitigation measures that have taken place in
3 Lone Pine, and that's on the ranch I work for, they seem
4 to have done a lot of -- a lot of good in correcting the
5 seizing of water spreading activities.

6 These meadows have greened up again but the
7 effect -- there hasn't been any effect to the west of the
8 fault, and that affect there from the well has all been
9 negative.

10 Now some things aren't going to change, as it says
11 in the document. The brush that's not dependent on
12 ground water, it's not going to be affected, it doesn't
13 seem to me.

24

14 What is going to be affected is the actual
15 irrigated meadows themselves. And I didn't see this
16 being addressed in the document any place.

17 Right now the Department of Water and Power
18 allocates five acre feet for these irrigated meadows.
19 Well, five acre feet on sandy meadows is enough water
20 when there's a good ground water table.

21 However, when the ground water starts going away,
22 the water doesn't go as far and therefore less meadow is
23 irrigated.

24 And near -- well, west of the fault line in Lone
25 Pine, the meadows that have been affected by the pump

1 there, you can see a -- the meadow is drying up and
2 moving -- well, downgrading itself, you could say.

3 Where there was a meadow in the '50's and the
4 '60's is now just bare dirt. And the meadow, because of
5 this drying affect, is actually decreased in size. It's
6 still an irrigated meadow and it's still getting its
7 water allotment and on the maps it's still the same size
8 that it was back then, but the actual meadow itself is
9 decreased and this is happening in a couple of different
10 places.

11 Now if you really have to put in this extra well,
12 I think, as a mitigation, this ought to be looked at.
13 The way these meadows are decreasing is because of a lack
14 of the water in the soil to make the five acre feet work.

15 And one way that this could be mitigated is when
16 it -- when the meadow's looking bad, more water could be
17 put into the ditch to irrigate it and that would offset
18 some of the effects of a lower ground water table.

19 Another point about the well, it seems to me that
20 if you have to have that well, you might do just as well
21 using the wells you already have there and save the added
22 expense of putting in another well that's just four to
23 five hundred yards away, because it's right in the same
24 vicinity anyway, it appears to me.

25 That's all I have on that.

1 I'd like to comment on some of the maps in the
2 document.

3 There's, in particular, a map about turning over
4 land around the towns that the City of Los Angeles would
5 give up.

25

6 The map concerning Lone Pine is -- I brought this
7 up at another meeting, it says -- well, the same lands
8 that you're proposing to give the communities from the
9 City of Los Angeles is where some of the mitigation
10 projects are and some of the best agricultural land
11 around Lone Pine, and I was told at the time, well, this
12 is just an outdated map. We didn't have anything else at
13 the time so we just threw it in there.

14 Well, I think that the document should be brought
15 up to date and these old maps that really aren't for
16 serious shouldn't be put in there because twenty years
17 down the road people are going to forget they just were
18 kind of thrown in and they will be for serious.

19 So I think the document ought to be brought up to
20 date and anything that isn't pertinent should be taken
21 out and it should be accurasized (sic) in the maps
22 themselves.

23 Thank you.

24 MS. KING: Okay. All right. Thank you.

25 Is there anyone else who would like to speak?

1 Remember, otherwise you have to go back and write
2 a letter. If you do it now, then it all gets written
3 down and turned in for you.

4 All right.

5 Well, thank you all very much for coming.

6 We really appreciate your thoughtful input and if
7 you have more thoughts, you know there are other meetings
8 you can attend as well, and that those of you who are
9 also going to take time to write in addition to speaking.

10 We'd like, I think on behalf of Joel and John, to
11 thank you all very much for coming out this evening.

12 (End of proceedings.)

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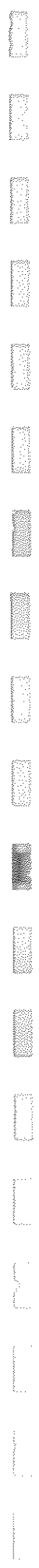
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**RESPONSES TO COMMENTS
LETTER E2**

RESPONSE E2-1

Comment noted. Please refer to response to master comment VE-1 for a discussion of allowable vegetation changes under the Agreement.

RESPONSE E2-2

Comment noted. No further response is required.

RESPONSE E2-3

Comment noted. No further response is required.

RESPONSE E2-4

Comment noted. No further response is required.

RESPONSE E2-5

Comment noted. Flows in the river below the intake were increased as a result of the project.

RESPONSE E2-6

Comment noted. No further response is required.

RESPONSE E2-7

This comment expresses a personal opinion unrelated to the content of the Draft EIR. Please see response to master comment PD-5 and WA-4.

RESPONSE E2-8

The meaning of this comment is unclear but noted.

RESPONSE E2-9

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E2-10

Please see response to comment E2-9 above.

RESPONSE E2-11

Please refer to response to master comment MT-4 for a discussion of discontinuation of mitigation.

RESPONSE E2-12

Please refer to responses to master comment MT-6 and Appendix C-2 regarding the Lower Owens River Project.

RESPONSE E2-13

Please refer to response to master comment PD-4 and AF-2 regarding new wells.

RESPONSE E2-14

Please refer to responses to master comments PD-4 and AF-2 for discussion of operation of new wells under the Agreement.

RESPONSE E2-15

Please see response D73-1 in Letter D-73.

RESPONSE E2-16

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; Appendix C-2 also presents a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E2-17

The section on rare and endangered plants has been expanded. Please refer to response to master comment VE-6 regarding this subject.

RESPONSE E2-18

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE E2-19

Please refer to response to master comment PD-5 regarding protection of springs and seeps under the Agreement.

RESPONSE E2-20

Please refer to response to master comment PD-12 regarding groundwater mining.

RESPONSE E2-21

Comment noted. Recharge of the groundwater basin has occurred in and around the Independence area for many years and will continue in the future.

RESPONSE E2-22

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE E2-23 through E2-25

Please see response to comments expressed in Noland letter D-67.

Letter E3

December 11, 1990, Bishop High School Auditorium, Bishop, California



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Public Meeting

Draft Environmental Impact Report

WATER FROM THE OWENS VALLEY TO SUPPLY

THE SECOND LOS ANGELES AQUEDUCT

Tuesday, December 11, 1990

Bishop Union High School Auditorium

Bishop, California

Facilitator: Mr. Ragan

Senior Vice President: John Davis

Project Manager: Joel Sabanorio

ORIGINAL

Reported by: Diane Alexis Hart, CSR No. 2367



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TUESDAY, DECEMBER 11, 1990

Bishop Union High School Auditorium

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MR. RAGAN: I just say that I think that certainly EIP welcomes your written comments, but because we do have a court reporter here tonight, certainly your oral comments, and even if you do not submit in writing, they are certainly treated with the same importance, equal importance, oral or written.

Sometimes written helps, but I just want to stress that the is microphone here, and I do ask you to come to the microphone because we are, as John mentioned, we are having this meeting recorded.

I do ask when you come to the microphone, if you will state your name and then any organizations that you represent so that we can get that on the transcript.

I will call, as I indicated on -- on a couple of people to indicate when you're coming -- or when I'm going to call upon you.

If any of you have come in late, I do repeat that we ask anybody who is interested or thinks right now that you would like to comment, to fill out one of these cards and give it to me at any particular time, that they're numbered. However, once I exhaust those I will certainly open the comment period up to anyone else.

1 I would like to call upon Supervisor Lefty Irwin
2 and then he will be followed by Scott Paterson.

3 SUPERVISOR IRWIN: Thank you, Jim.

4 I'd like to make a couple of statements before I
5 start making my comments on EIR.

6 I am actively the Chairman of the Board of
7 Supervisors, temporary time, and we did discuss this
8 extension of time lengthy today, and for the public
9 information we directed county council and water director
10 to contact EIP and city attorney to find out if we could
11 extend that to forty-five days as requested by a petition
12 today, but we do not wish to go any farther beyond that
13 and we wanted to be sure that we, the supervisors, were
14 not delaying this process in any way.

15 So we'll probably know maybe even tonight because
16 Greg James is working on it this afternoon and maybe
17 he'll have an announcement tonight whether those three
18 entities will allow us to extend it.

19 We will not be put in a position whereby we are
20 the ones that are delaying this process, so we have no
21 problem of extension, but we do not want to be the ones
22 that just go back to court and ask for an extension.

23 Also, in addition to that, I believe I could speak
24 for the Board of Supervisors, they encourage your
25 comments because these comments are eventually going to

1 get back to the Board of Supervisors and they're going to
2 analyze all of your comments and that may be information
3 to them in order to address and make a final decision on
4 what they think their constituents want them to do.

5 Mr. Bright did bring -- I told him I was going to
6 make comments tonight, and Mr. Bright brought to my
7 attention and said: Please don't be mean tonight. Do
8 say something nice.

9 I don't know how you can say anything nice when
10 you're commenting on EIR, but my comments are not to be
11 mean or any other way. I'll just make my comments as I
12 find them and, also, John, in a conversation on the phone
13 a week or so ago, you indicated that you would issue
14 receipts for all written comments given to you at these
15 meetings.

16 I have five comments. They're all on separate
17 pages so you can disburse them to your staff as you see
18 fit, and I hope to get five receipts when I leave.

19 My first comment would be on the word significant.

20 That's been a word used throughout our EIR Green
21 Book in agreement.

22 I would like to bring your attention to section
23 seven dash nineteen, paragraph 14.1 which states that
24 irrigated lands in the Owens Valley have been reduced
25 from twenty-one thousand eight hundred acre feet to

1 eleven thousand and six hundred acre feet, and that is
2 listed as insignificant.

3 That's forty-seven percent reduction to
4 agriculture since the second aqueduct has been put in. I
5 don't consider that insignificant.

6 Alternatives.

7 You have eight alternatives in the EIR.

8 Of the eight alternatives, item number three,
9 alternative number three, in my opinion comes closest
10 meeting the long-term water agreement that's been
11 negotiated between Inyo County and Los Angeles, but there
12 is a statement in that alternative number three I think
13 is absolutely incorrect.

14 It says -- I'm sure you people are aware it says
15 bring the water back to the rooting zone and monitor it
16 there. But the alternatives there will be additional
17 pumping and additional water for export to L.A.

18 I do not agree with that. I think that should be
19 looked into and corrected.

20 Mitigation or tradeoff or compensation.

21 That is called for on page seven dash fifteen and
22 article seven dash fifteen and seventeen. It indicates:
23 Many areas up and down the valley that have been damaged
24 due to Los Angeles Water and Power's activity of
25 gathering water.

3

1 It also indicates that that would be mitigated by
2 the development of the Lower Owens River Project.

3 I've served twelve and a half years on the
4 negotiating teams. I challenge anyone to get a copy of
5 the records and that word exchange or tradeoff was never
6 mentioned at any time in these negotiation sessions.

7 I think the Lower Owens River Project should stand
8 on it's own. I think the Lower Owens Project should have
9 an EIR of it's own.

10 We did not intend to have that as a tradeoff and I
11 don't expect it to be a tradeoff in this EIR.

4

12 The drought recovery policy.

13 That is called for in the EIR and the word "this
14 drought" is mentioned in one paragraph three times.

15 I don't think this EIR should address this
16 drought. It should address this drought and all future
17 droughts.

18 I think we do intend and hope this drought will
19 eventually get over and then we'll move onto and have
20 better -- better weather coordinator right now, and I
21 think the drought policy should address all future
22 droughts.

23 Also, in the drought, it does not describe water
24 drought, identified. I would like the EIR to clarify
25 what it means by drought.

1 Is it five percent below normal using four hundred
2 and sixty thousand acre feet as norm, or is ninety-five
3 percent below normal. Is that a drought?

4 Right now you're saying it's a drought. We know
5 we're in a drought now. We all agree to that, but will
6 seventy-five percent be a drought?

7 In your average recharge called for in the Green
8 Book published by Mr. Bill Hutchinson, our hydrologist?
9 I disagree with his analysis completely.

10 For example, if you had fifteen years of wet,
11 above normal precipitation or run off or recharge, and
12 then you had five years following that dry, below normal
13 precipitation recharge, you would be allowed to pump
14 additional water out of this valley even though it wasn't
15 available. That would not be fair to the vegetation.

16 On the other hand, if you had fifteen years of dry
17 years, less than normal, and followed with five years of
18 wet years, L.A. would not be allowed to pump water and
19 that would not be fair to them.

20 Give you a good example.

21 Out in the Laws area over the last twenty years
22 average, which includes 1969, which is almost a three
23 hundred percent recharge year, Mr. Hutchinson's tables
24 show there's additional twenty-one thousand acre feet of
25 water in the Laws well field now that could be pumped and

5

6

1 exported on his table.

2 Anyone going out there and looking at that area
3 can see that all the plants are either dead or dying.
4 The water table is approximately a hundred feet deep and
5 there's no way that that can be considered additional
6 water in that ground.

7 I thank you very much.

8 John, I have a copy of this.

9 MR. RAGAN: Thank you very much.

10 Our next speaker is Scott Paterson from Citizens
11 of the Eastern Sierras.

12 This is going to be a little bit unusual in the
13 normal, I guess, public meetings that I conducted, and
14 I'm very interested because Scott is going to introduce a
15 fourteen minute video that they have prepared and that is
16 the reason here for the video, and I will also relieve
17 the court reporter of having to record this, unless, of
18 course, you want to; but because they have agreed that
19 they will be giving the video to EIP. So with that,
20 Scott --

21 MR. PATERSON: Good evening. My name is Scott
22 Paterson and I'm here to present the following text on
23 behalf of a group of people who, over a period of time,
24 have actually watched this valley die.

25 The group of people who really love the Owens

1 Valley and it's environment are called the Concerned
2 Citizens of the Eastern Sierras.

3 Pages ten dash sixty-five through ten dash
4 sixty-seven of the EIR discuss the impacts of pumping and
5 surface water management practices in the Laws area.

6 Mitigation measure ten dash eighteen describes the
7 revegetation of only one hundred and forty acres adjacent
8 to Highway 6, north of Laws, six dash ten dash eight B.

9 However, the maps of exhibit A-13 of fourteen and
10 fourteen of fourteen of volume two, appendages the
11 volume, water -- appendages of 1984 through '87 show that
12 much more land in the Laws area was classified as type C
13 or wet lands

7

14 See page five dash four, paragraph one.

15 The Concerned Citizens of the Eastern Sierra have
16 prepared a documentary video showing the devastation of
17 sections nineteen and twenty, township six, south range
18 thirty-three east since that time.

8

19 This area is not addressed in the EIR.

20 In addition, page ten dash seventy-two, the last
21 paragraph states, I quote, and bear with me please:

22 (Reading)

23 Decreases and changes in vegetation
24 and other environmental affects will be
25 considered to be attributable to ground

1 water pumping or to a change in surface
2 water management practices if vegetation
3 decrease, change or environmental affect
4 would not have occurred but for ground
5 water pumping and/or a change in past
6 surface water management practices.

7 A given site would be compared to
8 an area of similar vegetation, soils,
9 rainfall, and other relevant conditions
10 where such a vegetation decrease, change
11 or environmental affect has not occurred
12 nor has occurred to the same degree.

13 Unquote.

14 If you didn't understand that, I don't blame you.
15 The video addresses this comparison by showing the Warm
16 Springs area approximately three miles to the south and
17 the Chalfant Valley area approximately three miles to the
18 north where surface water management is the same and the
19 vegetation has survived the drought.

9

20 With all other factors being equal, how could this
21 devastation have been caused by anything but ground water
22 pumping?

23 Under these circumstances, why is the entire Laws
24 area not addressed and mitigated in the EIR?

25 Thank you. And we'll now show you the video.

1 MR. RAGAN: Some of you here, you may want to
2 temporarily or permanently move so that you can see the
3 T.V. if you want to.

4 (Video played, not reported).

5 MR. RAGAN: Thank you very much.

6 Next speaker is Roy Knight followed by Louis
7 deBottari.

8 Do I have --

9 MR. deBOTTARI: deBottari.

10 MR. RAGAN: I'm sorry, deBottari.

11 MR. deBOTTARI: Okay.

12 MR. KNIGHT: Hi. My name's Roy Knight. I'm a
13 resident here of Inyo County and I specifically live down
14 in Northern Wilkerson Ranch area.

15 With a chance of being somewhat redundant to some
16 of the things that have already been covered, I would
17 like to cover some of the same subjects but maybe using
18 some different words.

19 At one of our meetings not too long ago I asked
20 the question. The question was: How many tests in
21 monitoring wells do we have in Owens Valley to monitor
22 the ground water table?

23 Mr. Buchholz assured me that there were seven
24 hundred of these throughout the valley.

25 My next question was: How many of those have

1 water in them?

2 Total silence even 'til today.

3 If, in the past, they've had this amount of wells
4 put in, where in the world is the data? What have they
5 used with the information?

6 Are they really trying to save the vegetation?

7 I believe that the information gathered from these
8 tests and monitored wells should be made a part of the
9 EIR.

10 By the way, I do not have this in writing, but I
11 will write this out and I will send it to you by
12 registered mail.

13 Take as an example, now, page one seventy one of
14 the Green Book. This is a twenty year so-called study of
15 what the pumping was in relationship to recharge in that
16 same period of time.

17 This specifically states on page one seventy one
18 of your Green Book: (Reading)

19 There has been a recharge in excess
20 of pumping of one million five hundred and
21 forty-one thousand two hundred and
22 thirty-two acre feet.

23 Mr. Giordano wrote a letter to the local paper and
24 made this statement.

25 Mr. Hutchinson, who has been a prime mover in

1 putting this package together, came back and made a
2 statement to Mr. Giordano.

3 And I state: (Reading)

4 Ground water also flows out of the
5 basin by vegetation use, of apparition
6 from the soil, springs and flowing wells,
7 flows to the Owens River and sub surface
8 flow out of the basin.

9 I agree with Mr. Hutchinson. But this is not a
10 part of the study to be made to determine what the damn
11 pumping program will be.

12 They state in here, in simplified terms:

13 (Reading)

14 We will use a simplified method to
15 determine the six month pumping program.

16 If they did it now, just like the gentleman said a
17 moment ago, you can still pump twenty-one thousand acre
18 feet out of Laws.

19 Well -- why that's bull manure.

20 And then take into consideration the real world
21 and get the information in there, all the factors, not
22 part of them.

23 We also talk about mitigation.

24 Boy, here's one that really galls me.

25 We have a mitigation project today in Owens Valley

1 that allows for the growing of alfalfa hay.

2 Alfalfa is a high intense water use crop.

3 The water to be used on this alfalfa is paid for
4 by DWP.

5 They pump -- they pay the electricity to bring it
6 to the surface.

7 A local water commissioner is able to harvest and
8 plant that alfalfa and realize all the profit from it.

9 Now are we going to have more mitigation projects
10 like that?

11 I think it's time that we take that out of
12 mitigation, put that in to the lessee/lessor holder as it
13 should be, and let that be put up.

14 If it stays the way it is, then some of the profit
15 should come back into Owens Valley.

16 I recommend that we do not have mitigation
17 projects that allows for the growth of alfalfa.

11

18 Also asked the question about why is it that in
19 this agreement that we have to pick up a tab of three
20 million seven hundred and fifty thousand dollars for the
21 Lower Owens River Project?

22 Was devastated by DWP.

23 Why are we having to pay for it?

24 A supervisor told me we don't have to.

25 I don't see any changes in here, and it

1 specifically states very clearly and distinctive; we will
2 have to pay DWP three million seven hundred and fifty
3 thousand dollars.

4 Why?

5 I don't understand why we have to.

6 Control the surface water.

7 I assume that I was told that this is controlled
8 by the state. It is legislated by the state.

9 Does this EIR preempt state laws?

10 That's my question. I want to know an answer to
11 that one because it states in here: Surface water
12 management.

13 Do we manage it or does the state control it?

14 Not too long ago I was listening to the local T.V.
15 Channel and Mr. Greg James and Mr. Tony Rossman have
16 clearly and very distinctly stated that the ground water
17 ordinance that we had here had been implemented within
18 the EIR.

19 It's also been stated to us on numerous occasions
20 that this was found to be unconstitutional.

21 Well, if it's unconstitutional, then why is it not
22 unconstitutional today?

23 They have made this statement. We do need an
24 answer on it.

25 Thank you.

1 MR. RAGAN: Thank you very much.

2 Mr. deBottari. Did I pronounce that right?

3 MR. deBOTTARI: Sure.

4 MR. RAGAN: Followed by Larry Stidham of
5 California Indian Legal Services.

6 MR. deBOTTARI: My name is Louie deBottari. I
7 live in Walker, California.

8 I have read this EIR with interest.

9 This is supposed to be a technical document in
10 which all stated facts and data are traceable.

11 I find it very suspect when adjectives are
12 injected like, quote: Better, much, or statements like
13 probably not significant or less expensive.

14 What's less expensive?

15 This document should be reviewed by the auditors
16 and all such statements removed and quantified.

17 If you can't quantify it, you don't know what it
18 is.

19 In addition, the data that is presented in many
20 cases has different future time periods so it is very
21 difficult to ascertain exactly what will be the shortfall
22 of water in L.A. in the year two thousand and ten.

23 My assessment of the problem is that L.A. will not
24 be able to obtain the necessary water from MWD since MWD
25 is projecting a shortfall of one point two four million

1 acre feet.

2 In addition, the amount of waste water that we
3 will reclaim will not satisfy the reclinement of all the
4 golf courses, parks and industrial cites.

5 This is a document that is to be used as a
6 planning tool for the future. And I don't believe that
7 the year two thousand ten, only nineteen years away, is
8 too far in the future to plan and let everyone know how
9 the Department of Water and Power will obtain the
10 significant shortfall of water.

11 The proposed project totally ignores this problem
12 and attempts to dress up a few very near term mitigation
13 measures that will never survive in the year two thousand
14 and ten when people in L.A. need the water for health
15 reasons.

16 This proposed plan must clearly describe in detail
17 what will happen in the year two thousand and ten.

18 The proposed Band-Aid solution is not a long term
19 fix.

20 Pumping all the water out of the Sierras is not a
21 solution.

22 This -- this report dismisses out of hands and,
23 interestingly enough, it was even dismissed today, using
24 a couple of pages, a solution that would make L.A.
25 independent of dry years and would provide excellent

1 water forever.

2 In addition, the Owens Valley environment could be
3 returned to a quality enjoyed before the Owens Lake went
4 dry.

5 The solution is desalinization.

6 The report clearly does not want to show how good
7 this solution would be for the environment both in the
8 L.A. area and in the Owens Valley.

9 A few pluses for this approach are multi
10 installations would be less earthquake sensitive when
11 compared to the aqueduct system which crosses a fault
12 several time. Two potential sabotage of the water
13 transport is eliminated.

14 Three, the water replacement is reduced and
15 concern of harmful -- of chlorination is eliminated in
16 the DWP.

17 Four, the evaporated waste is greatly diminished.
18 The amount presently lost in the transport system during
19 dry years is not stated in the EIR. It's inferred, but
20 try to dig it out.

21 I believe that the proposed water saving program
22 in L.A. will be equal to loss due to evaporation.

23 The cost of -- the cost of electrical power was
24 overstated in the report.

25 Using data of a unit similar to one I have

1 experience with, the actual power to desalt one acre foot
2 of sea water is nine thousand four hundred and fifty
3 seven which will -- was to replace the hundred thousand
4 acre feet of ground water, the power required would be
5 about two point six percent of the total power that L.A.
6 is projected to use in the year two thousand ten.

7 This was one example where they were showing the
8 power today and the water, so trying to compare apples
9 and oranges is what they were doing.

10 This amount is within any credible estimate. The
11 cost of producing the one acre foot using 1990 dollars
12 and the electrical rate I pay would be seven hundred and
13 eighty dollars an acre foot.

14 The stated cost is about the same as the projected
15 recycle water costs for irrigation and industrial use.

16 For the same costs they can have very good
17 drinking water, and the cost of desalinization will be
18 less than three tenths of a cent per gallon.

19 I realize that the Owens water is about one tenth
20 of that. The -- the impact is on the agricultural and
21 industrial users who uses thirty-seven percent of the
22 water.

23 The Owens Valley environment should not be traded
24 for these special uses.

25 The proposed project restricts agriculture where

1 water is free or very inexpensive and transport it to an
2 area that mother nature never planned to support
3 expansive green fields.

4 I had a professor who said: When you think you're
5 beating mother nature, watch out. She's got you and you
6 don't know it.

7 Taking this one step further; if all the water
8 that is presently meant to be exported from the Owens
9 Valley was supplied by the ocean, it would take about
10 five point two percent of the required electrical power
11 that is projected by L.A. in the year two thousand and
12 ten.

13 This power can be generated by a solar farm
14 located in the desert that would be forty miles square.

15 It would not be necessary to burn coal and pollute
16 the environment to obtain the water.

17 Now the cost of procuring the number of units
18 necessary to replace the ground water from the Owens
19 Valley would be less than four hundred and fifty dollars
20 per L.A. person, and to reduce the export to zero, the
21 cost would be less than a thousand dollars per person.

22 This is a small cost to implement a water system
23 that can grow with the city.

24 In summary, approaching the twenty-first century,
25 it is incredible to me that anyone would want to continue

1 to spend funds on a water transport system developed over
2 eight hundred years ago.

3 The EIR is inadequate and requires a much more
4 detailed study on the desalinization alternative, not a
5 page and a half by a technical group who really wants
6 this alternative to be chosen before this document is
7 submitted.

15

8 I thank you.

9 MR. RAGAN: Thank you very much.

10 Larry Stidham. I hope I pronounced that more or
11 less --

12 MR. STIDHAM: That's right.

13 MR. RAGAN: Followed by Roberta Ann Matlick.

14 MR. STIDHAM: My name's Larry Stidham. I'm an
15 attorney with California Indian Legal Services.

16 Today we've been hired by the United States
17 through the Bureau of Indian Affairs to assist the Owens
18 Valley tribes in preparing a response to the EIR and
19 attempt to clarify and, hopefully, confirm the off
20 reservation water rights of the Owens Valley tribes.

21 We dispute the contention in the EIR that the
22 water rights traded were traded to DWP in the 1939 land
23 exchange. In fact, I think the position of the tribes is
24 that the tribes retain ground water rights to about
25 thirty-one hundred acres around Owens Valley.

16

1 I believe that we'll prepare a written statement
2 to that effect and explain why we believe that and why we
3 think that that's an error in the report.

4 I believe Mr. Irwin has also talked about the
5 possibility of a forty-five day extension to submit those
6 written reports or comments.

7 I'd like to request, on behalf of the Owens Valley
8 tribes, that there be a forty-five day extension so that
9 we can completely answer the questions that we have and
10 look into the problems that we see with the EIR.

11 Thank you.

12 MR. RAGAN: Thank you very much, Mr. Stidham.

13 Roberta Matlick followed by Yan Kinney.

14 MS. MATLICK: I'm Roberta Matlick and, except for
15 three years, I have been a resident of the Owens Valley
16 for the past forty-four years.

17 I was a math teacher at this high school and I'm
18 still involved in project writing and self studies of
19 program quality reviews and accreditation reviews which
20 are every bit as thick as this book.

21 I have eight comments to make tonight.

17
22 On page five twenty and twenty-one, table five
23 twenty-three, there is a listing of enhancement
24 mitigation projects, 1985 to 1990.

25 Many of these have not been implemented or have

1 only been partially implemented; for example, the Laws
2 Historical Museum Project, the Laws Polita Native Pasture
3 Project, the McNalley Pond Project.

4 Please correct the table to include projects which
5 are fully operating.

6 Another table might indicate those which are in
7 process of being implemented with still another
8 indicating those to be implemented.

9 The first paragraph on ten sixty-seven reiterates
10 that these projects have been implemented.

11 Please correct that.

12 Comment two. Figures five one and five two
13 indicate that thirty-six thousand acre feet of water was
14 flowing from springs and wells in a typical dry year,
15 pre-1970, and that only eighteen thousand acre feet was
16 flowing on a typical wet year, 1970 to 1990.

17 Please address the fact that only one half the
18 water from springs and wells in a wet year is in 1970 to
19 1990 as in a pre-1970 dry year.

20 Comment three. In the last paragraph of page five
21 fifteen, and again with slightly different wording on
22 sixteen forty-one, paragraph three, it states: (Reading)

23 It is estimated that Los Angeles
24 has annually supplied approximately
25 twenty-seven thousand acre feet of water,

18

19

1 not including conveyance losses, to its
2 land on the cone since 1981-82, while Los
3 Angeles has annually extracted only eleven
4 thousand five hundred acre feet from
5 pumped and flowing wells on the cone.

6 Please show backup figures for this estimate and
7 explain how the following sentence, quote: (Reading)

8 Thus under the Hillside Decree, Los
9 Angeles may increase ground water pumping
10 on the cone.

11 -- unquote, can be allowed to be placed in the EIR
12 when no actual accurate method of measuring usage has
13 been derived.

20

14 Comment four. Table thirty-two on page
15 thirty-three indicates water usage in selected cities.
16 No rationale is made for the selection of those cities.

17 This is mandatory for any correct statistical
18 analysis.

21

19 Next comment. Paragraph three on page sixty-seven
20 states, quote: (Reading)

21 Studies of the effects of ground
22 water pumping on Owens Valley ground water
23 deep vegetation suggests that water tables
24 may decline below the rooting zone of such
25 vegetation from one to several years with

1 no significant adverse vegetation impact
2 depending on the type of vegetation, the
3 type of soil and the precipitation levels.

4 Unquote.

5 Please furnish evidence of these studies.

6 The following paragraph continues by saying,
7 quote: (Reading)

8 It is believed that such permanent,
9 rigid limits or not necessary to protect
10 the valley's vegetation.

11 Who believes this and what basis is there for this
12 belief?

13 Comment six. The paragraph at the top of three
14 twelve states, quote: (Reading)

15 Water consumption in Los Angeles
16 through the spring and summer months of
17 1990 has been estimated between ten to
18 fifteen percent below the anticipated
19 normal consumption.

20 Unquote.

21 In listening to reports on T.V., Channel 7, ABC,
22 these figures appear to be incorrect.

23 Please show exact figures for the entire 1990
24 year.

25 And my two final important comments.

1 Page sixty-seven, paragraph three, states that an
2 immediate return to the environmental conditions that
3 existed during the pre project period will not occur
4 simply by resuming pre project Owens Valley water
5 management practices, thus the damage has already
6 occurred.

7 Page fifty-eight, paragraph three states:
8 (Reading)

9 The future average rate of ground
10 water pumping is not known, but it is not
11 expected to change significantly as
12 compared to the 1970 to 1990 period.

13 Unquote.

14 Would this not imply that the damage would
15 continue?

16 Does this not negate the total purpose of the EIR?

23

17 And, finally, numerous statistical errors appear
18 in the EIR.

19 These include:

20 S-2, incorrect map scale.

21 Thirty-two, the 1990 figures should be indicated
22 as estimated.

23 Three fourteen, incorrect addition, incorrect
24 percentages.

25 Three fifteen, averages do not agree with the

1 previous page.

2 Five thirteen, no indication in footnote two as to
3 the dates included in the average.

4 Some of these errors have been or are being
5 corrected after I called the Inyo County Water
6 Department's attention to the most blatant.
7 Consequently, the Water Department wrote to the EIP and
8 the DWP asking them to review and verify the data before
9 this meeting.

10 I have not seen evidence of that.

11 These errors are easily corrected, but they cause
12 lack of credibility to the total EIR.

13 MR. RAGAN: Thank you very much.

14 When you use the word "include", if there are
15 others that you haven't mentioned, I hope you will submit
16 those in writing to EIP.

17 Did I have that right? Is it Yan Kinney.

18 MRS. KINNEY: Yes, it is.

19 MR. RAGAN: And followed by Mel Shapiro.

20 MRS. KINNEY: My name is Yan Kinney and I'm
21 speaking for the League of Women Voters of the Eastern
22 Sierra.

23 A VOICE: Turn around.

24 Turn around. I'm looking right at your back.

25 MS. KINNEY: Yeah. I've got to talk to them,

1 Margaret.

2 MR. RAGAN: Well, they're going to hear it anyway.

3 MRS. KINNEY: Mr. Davis, the League of Women
4 Voters of the Eastern Sierras has the following comments,
5 questions and suggestions for the draft EIR and
6 agreement.

24 7 One. The ground water management report issued by
8 the county in 1981 listed about twenty-five thousand
9 acres of vegetation as damaged by pumping or surface
10 water management changes.

11 This draft EIR mitigates only about twenty-five
12 hundred acres which it refers to as all significant
13 damage.

14 The EIR should justify the insignificance of the
15 remaining ninety percent of damaged areas by showing what
16 is considered significant and why.

17 Will significant be interpreted this way under the
18 agreement?

19 If not, the agreement should have some more
20 quantitative definition.

25 21 Two. Since the calculation of soil moisture done
22 on October 1st adds in a specified proportion of the
23 average annual precipitation, the vegetation could
24 actually lack sufficient water to get it through the next
25 growing season in a drought year.

1 We suggest an earlier evaluation of soil moisture,
2 an automatic well turnoff after winters with less than
3 average precipitation. Perhaps June 1st.

4 Three. In order to recover to the 1984-1987
5 vegetation levels after the present drought, we suggest a
6 drought policy that will maintain the soil moisture at
7 the amount that would have been used by vegetation as it
8 was in 1984 to '87 until there is full recovery of the
9 vegetation to it's 1984-87 levels.

10 The EIR should allow for mitigation of areas
11 damaged since 1970 that are discovered after this process
12 has concluded.

13 For example, if a new study of the pre-1970 aerial
14 photos show clearly that damage had occurred due to
15 ground water pumping or changes in surface water
16 management, the damaged area shall be mitigated.

17 The EIR should be consistent in its definition of
18 the Owens Valley. Maps in the EIR show that Owens Valley
19 reaching into Mono County and Nevada, but references in
20 the text are clearly to that part of the Owens River
21 Basin contained in Inyo County.

22 The agreement should specify that the wells exempt
23 from the automatic turnoffs should be used only for the
24 purposes which made them exempt.

25 Pumping should not be increased to exceed levels

26

27

28

29

1 required for those uses under any circumstances.

2 It is not completely clear if the well turnoff
3 procedure is subject to dispute resolution.

4 On page B twenty-five, after the description of
5 well turnoff on line sixteen, the sentence: (Reading)

6 This well turnoff is not subject to
7 dispute resolution --

8 -- should be added, otherwise the list of
9 procedures subject to dispute resolution on page B
10 fifty-nine and B sixty might be interpreted to include
11 well turnoff.

12 On page forty-four of the Green Book, Tamara
13 scrub, salt cedar, should not be listed as a type D or
14 any type of vegetation to be protected since actually the
15 Enchant is too eradicated. No other type D vegetation
16 should be allowed to go to salt cedar without that being
17 considered significant change.

18 While we recognize that some of the already
19 damaged areas may have to be mitigated elsewhere instead
20 of on-site, we would like the agreement to insist that
21 all future damage must be prevented or mitigated on-site.

22 The difficulty of on-site mitigation will be an
23 incentive for the prevention of damage.

24 The Green Book and the EIR vegetation chapter and
25 tables should use a scientific name of plants everywhere

1 with a consistent and common name in parenthesis. There
2 is no consistency at present.

3 The EIR should include an index and glossary of
4 abbreviations. There appears to be no monitoring sites
5 listed on the Bishop Cone.

6 The League of Women Voters support all reasonable
7 water conservation measures in Los Angeles and in the
8 Owens Valley.

9 MR. RAGAN: Thank you very much.

10 Mel Shapiro.

11 After Mr. Shapiro, we're going to take a brief
12 break and the reason is so that the court reporter and
13 her hands, so that she can stretch them and exercise
14 them, so that she can record it accurately all of the
15 rest of the way.

16 So I have following after the break, then, Marcia
17 Sherwood.

18 Mr. Shapiro.

19 MR. SHAPIRO: I'm Mel Shapiro, private citizen
20 residing in Bishop.

21 It just occurred to me after the last
22 presentation, is it possible that a transcript of these
23 proceedings be mailed to at least those that are signed
24 in or available?

25 The reason I ask is that people are quoting all

1 kinds of sections in this EIR.

2 I read it more or less, thumbed through it, but I
3 don't have -- I'd like to be able to refer to some of
4 what has been brought up here tonight specifically and I
5 won't remember, so I'm asking if Mr. Davis --

6 MR. RAGAN: Is there a policy with respect to the
7 availability of the transcripts? I mean, I know some
8 public agencies make them available at cost or
9 reproduction.

10 MR. DAVIS: They haven't established any.

11 MR. RAGAN: The answer is they haven't established
12 any. I guess they're not going to respond definitively.
13 They will take that, rather as a question, as a firm
14 request.

15 MR. SHAPIRO: Okay. I make that as a request and
16 at least have a copy made available to the water office
17 here. If one could go in and pick it up and make his own
18 copies, I would like to see that.

19 MR. RAGAN: That's a fair request.

20 MR. SHAPIRO: First, two or three items here. I
21 will read a copy of the letter I sent to Mr. Davis dated
22 last Friday and I just want to back it up publicly.

23 (Reading)

24 Dear Mr. Davis: Enclosed is a copy
25 of page three from the 12 April Standing

1 Committee Meeting minutes.

2 It was my understanding that all
3 public comments at that meeting would be
4 addressed by EIP Associates in preparing
5 the EIR.

6 However, the full transcript of the
7 minutes makes no reference to my
8 understanding or misunderstanding.

9 Be that as it may.

10 The issue brought up here earlier
11 is the ground water pumping versus
12 recharge as was stated in the August 1st,
13 1989, technical group memo. The same
14 issue is illustrated on page one seventy
15 or one seventy-one of the Green Book.

16 I could not find it discussed in
17 the EIR. Being a nontechnical person,
18 perhaps I missed it.

19 If so, please direct me to where it
20 is.

21 Just reminding the audience here, that's the table
22 that says over a twenty year period recharge exceeded
23 pumping.

24 One could draw a lot of conclusions to that, but I
25 certainly would direct the EIP Associates to pursue onto

1 it.

2 In any case, continuing with the letter: (Reading)

3 Please address this -- please
4 address in the next version of the EIR a
5 broader explanation of this issue and its,
6 quote, significance or absence thereof.

7 In my opinion, the subject deserves
8 at least half the space devoted to the
9 bird chapter.

10 Don't misunderstand; I enjoy the
11 bird wildlife chapter and found it very
12 informative, although I'm not sure what it
13 has to do with exporting water to Los
14 Angeles.

15 And that's the end of the letter.

16 A couple other comments. The title to this whole
17 title says: Water from the Owens Valley -- this is via
18 the second Los Angeles Aqueduct.

19 Owens Lake is part of the Owens Valley.

20 On two separate occasions, one Thadeus Taylor and
21 another, Supervisor Irwin, explained to me why the Owens
22 Lake problem does whatever was not to be a part of this
23 EIR.

24 I could not debate their reasons they involve.
25 The State owned the land. There are other agencies

1 involved. I respected their point of view.

2 However, I don't share it.

3 My position is that it is an integral part of the
4 entire problem and, irregardless of the fact that other
5 agencies are involved in trying to help it or expert are
6 interesting, or who owns the land, that all sounds like a
7 political kind of smoke screen and I think -- I don't --
8 it is my opinion that EIP cannot ignore Owens Lake, and
9 just because the Inyo County part of the Standing
10 Committee and the Department of Water and Power say no,
11 it isn't and it will not be a part of the EIR.

12 I disagree with that and I would like for you to
13 examine that issue further.

14 Again, Owens Lake is an integral part of the
15 entire problem.

16 Water is water, dust is dust and Inyo County is
17 Inyo County. It's all part of the same thing in my
18 opinion.

19 The other one small comment, and there's a lot of
20 it been spoken about, the Laws area, kind of my regular
21 route.

22 And what is my regular route?

23 Well, as a retired person either riding bicycle or
24 motorcycle riding around the area several times a month
25 and going up the back road there, I think it's called the

35

36

1 Laws Poleta Road, on my motor a few weeks ago, I came
2 across this pump and water about yay big in diameter
3 (indicating) is coming out of a pipe and going into a
4 ditch, and then I saw -- I wish I could have quoted the
5 section in your EIR. One place there it says something
6 about a pump currently in operation in Laws that was for
7 mitigation.

8 By period. It didn't say mitigation where, how
9 who.

10 Now from my layman's point of view, that big
11 diameter of water was going through to a ditch and I
12 assume the ditch was going into the Owens River.

13 Is that mitigation and mitigation where?

14 If you were to tell me that we are -- we have
15 denuded acres here but we are going to mitigate five
16 hundred acres down the line someplace, maybe that's a
17 tradeoff, but I don't understand that.

18 I'm questioning what I think I read in the EIR in
19 that one little section that the pump is in operation.

37 20 I'll drive out there day after tomorrow. Maybe DWP will
21 turn it off tomorrow and Friday I won't see it. But it's
22 kind of -- it's insult going to see that water pouring
23 out of there in the ditch. Where is it going?

24 Is that water being used to supply the second
25 aqueduct?

1 If I keep going, I'll become redundant.

2 Thank you for your attention.

3 MR. RAGAN: Thank you very much.

4 Just before we take a break, I have, right now,
5 just to make sure I have everything from people who now
6 think they want to speak, five more cards.

7 Marcia Sherwood, Campy Camphausen, Dave Smith,
8 Mark Bagley and Tom Lone Eagle. So that if there are
9 others of you, or if I missed -- if somehow a card was
10 destroyed or one didn't get to me, I think there are
11 still some out on the table and if you'll get them to me
12 on the break -- let's take a -- it is now nine o'clock.
13 Is ten minutes all right?

14 THE REPORTER: Yes.

15 MR. RAGAN: At 9:10 we'll reconvene.

16 (Recess.)

17 MR. RAGAN: Let's reconvene, please.

18 John, Russ, I'd like to get started again.

19 Just before the break I mentioned that there were
20 five speakers. I have now, actually at this point, we're
21 now up to ten.

22 See if I call a break again.

23 Marcia Sherwood followed by Campy Camphausen.

24 MS. SHERWOOD: I wasn't intending on giving any
25 kind of formal speech. I just have a few questions I'd

1 like to put before you.

2 I understand that the Steward Ranch, one of the
3 wells have been dried up at Steward Ranch in Big Pine.

38

4 I'd like to know if there are any other guarantees given
5 to any other landholders in the valley that this would
6 not happen to them, if you could guarantee that at all?

7 MR. RAGAN: So, could I just turn that around as a
8 statement here, that you want some guarantee that what
9 happened there would not --

10 MS. SHERWOOD: Can a guarantee be given?

11 MR. RAGAN: But you want that addressed?

12 MS. SHERWOOD: Uh-huh.

39

13 Also, I hear rumors of various sources at various
14 times that the water table was down, we saw a movie,
15 between a hundred and a hundred and twenty feet at Laws.
16 I hear at Steward Ranch it's down to ninety-five feet and
17 at Independence it's down to a hundred.

18 I'd like for it to be public knowledge at any
19 given place, where there are test wells, to have that
20 public knowledge and that's all I'd like to say.

21 MR. RAGAN: Thank you very much.

22 MR. RAGAN: Campy Camphausen followed by Dave
23 Smith.

24 MR. CAMPHAUSEN: This is Campy. I live in West
25 Bishop.

1 I have looked at the Green Book. I'm sending in a
2 report, but I'm not going to give the report. Three
3 minutes. Summary.

4 For that I need my glasses.

5 A VOICE: Would you state your name again, please.

6 MR. CAMPHAUSEN: Campy or Camphausen. Fred
7 Camphausen.

8 The summary:

9 Management goals are well stated in the draft EIR
10 but the technical follow through is deficient. It will
11 be evident from the discussion that follows.

12 That's not important. That avoiding -- that's
13 quote: (Reading)

14 Avoiding significant effects on the
15 environment which cannot be acceptably
16 mitigated while supplying a reliable
17 supply of water for export to Los Angeles
18 and for use in Inyo County may not be
19 realized as an outcome of the agreement
20 without technically improving both
21 concepts and methods of implementation.

22 This investigator's a resident of Inyo County, a
23 physicist who believes that water agreement should be
24 signed between L.A., DWP and Inyo.

25 The reason for this review is to provide the very

1 best water agreement, or to promote the very best water
2 agreement that could be developed both technically and
3 physically.

4 I reviewed the Green Book. However, I did not
5 study the contained references to verify the accuracy of
6 their citation or to ascertain their validity within the
7 reviewed work.

8 Most of the needed changes are in the concept of
9 operation of the network of soil retained moisture
10 monitoring sites.

11 To a lesser extent, the employed hydrology model,
12 in a few instances conceptual difficulty within the water
13 management protocol and procedures, have been identified.

14 The recharge equations were found to be in error
15 and have been refined and numerical analyses were
16 performed using the correct equations along with data
17 from the 1989 water year.

40

18 The analysis indicate the total recharge and
19 portion of the Owens Valley for 1989, that's the northern
20 portion, has been overstated by sixteen percent and this
21 part of the valley was therefore over pumped.

22 By contrast, an average error of nine percent
23 recharge was assessed for the opposite end of the valley
24 and this part was compensatorially under pumped. And as
25 an aside, well field area recharge draft given in figures

1 one through six are impressive and misleading in that the
2 input data are not observed data as stated.

3 In these drafts we can demonstrate that from
4 County figures. Those figures are one through six of the
5 Green Book.

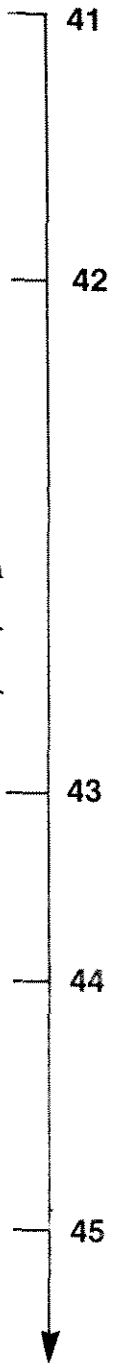
6 The twenty year running average utilized as a
7 controlled methodology to quantify pumping goals is
8 inappropriate because of contained perceptual and
9 economical problems.

10 Based on the drought circumstances apparent in
11 1990 year where the agreement is yet unsigned, this
12 twenty year model is now set aside by L.A. DWP and Inyo,
13 probably until the drought period. No consideration is
14 currently given to critical water needs of new vegetation
15 for which additional moisture is required within the near
16 surface nutrient zone for the survival of delicate new or
17 offspring plants.

18 Without replacement in the utilization of the
19 plant operation having some half-life, roughly half of
20 that plant population won't be around at period end.

21 The agreement, soil retained moisture long
22 methodology is a carryover of agricultural and research
23 application, has not previously applied as the water
24 management adjunct in the valley wide scale.

25 It is experimental and unproven except in the



1 central valley of California where it's used to set
2 irrigation turnoff vise, well field turn on and should be
3 tried out only as a secondary management tool until it's
4 cost impact and degree of success are invalidated, a
5 process requiring several years.

6 Further, soil moisture should be ordinarily not
7 considered fundamental perimeter by the Water Resource
8 Administrator or of the Water Commission having off-site
9 responsibility.

10 Soil moisture is useful in understanding
11 vegetation needs, but its role is secondary to water
12 table level as a management system control variable.

13 This is because soil moisture is a delayed and
14 varied response to the presence of intervening geology
15 and atmospheric boundary phenomena which is -- which does
16 not come under system control.

46

17 An essential technical feature to be recognized in
18 designing an overall water management philosophy is that
19 Owens Valley consists of a series of essentially closed
20 basins. Any water removed from a basin at one place by
21 pumping will eventually have some influence on every
22 other part of the basin.

23 This feature assists in identifying water table
24 level as a preferred primary system measurement variable
25 in corollary. It would be illogical to pinpoint

1 responsibility for a vegetation impact as being either
2 due to pumping alone or a surface water management or to
3 drought alone.

4 Responsibility for any damage done would be shared
5 by both water resource management and the drought.

6 Long cherished ideals concerning valley
7 preservation may at some future time be confronted by
8 emergent economic challenges, for example, a currently
9 configured soiled moisture monitoring program will
10 generate a surface of material and untimely data at a
11 cost which will build as time goes on.

12 However, the price of resolving this, another
13 technical shortfall is not untangible (sic).

14 The multifunctional laundering network recommended
15 herein, when fully implemented, could reduce the overall
16 data collection efforts by a third, the data production
17 resources within the floor of Owens Valley.

18 My proposal goes way beyond the fine tuning of the
19 project concept envisioned by the Green Book.

20 The recommended network consolidates water
21 management and site or collection data correlation
22 functions within each site.

23 Each site would yield an appropriate data sample
24 for observing and maintaining healthy vegetation while
25 also being able to reconstruct vegetation impact scenario

47

48

1 for mitigation. Such an impact occurs.

2 Anyone of the -- of the multi functioned sites
3 would, in the future, have as much priority in managing
4 well fill output as any of the sites linked directly to
5 the production wells.

6 This operating philosophy will require a very good
7 valley floor flow mount model, a better one than a simple
8 3-D model described in the Green Book, one which I
9 believe could be developed in using data from the sites
10 themselves operated within a flow rate testing regimen
11 in -- over a period of time.

12 The foregoing paragraphs described a concept or
13 hardware mechanization which I hope to sell, before that,
14 I wish to state that any concepts offered within the full
15 report be shipped to EIP are free of charge with hardware
16 mechanization taken roughly as prescribed within the
17 Green Book.

18 I wrote: Losses management type B vegetation has
19 not been shown to be mitigated.

20 MR. RAGAN: Thank you very much.

21 Dave Smith then followed by Mark Bagley.

22 MR. SMITH: With all due respect, I'm not a
23 physicist. My name is Dave Smith and I've been a
24 resident of Bishop and formally a county administrator to
25 three counties, Los Angeles County, Sacramento and more

1 recently in real estate development and brokerage.

2 My comments have to do with chapter fourteen of
3 the draft EIR. Those are the ones on economic
4 development, and my opinion with regard to the water
5 management practices and the long-term ground water
6 management plan is that the people have basically come up
7 with a reasonable method of permitting bad effects on the
8 vegetation and what I do hear is a lot of things about
9 fine tuning those effects.

10 I don't want to comment on those aspects. I wish
11 to comment on some equally important effects on us as
12 human beings and our families only and our livelihood.

13 This particular chapter fourteen goes into Los
14 Angeles land use policies, their restricted effect on
15 beneficial economic development in the Owens Valley.

16 The preparers of the EIR were requested to include
17 a variety of socioeconomics in the draft, and, in my
18 opinion, they have not done a very good job in including
19 those.

20 There appears to be a lack of awareness or
21 sensitivity to the fact that the Owens Valley is more
22 than a land area to be managed solely for water
23 extraction.

24 There are people who live here and we're also a
25 part of the natural environment, social and economic

1 consequences, the second aqueduct and the intended
2 restriction of agricultural land and restrictions of use
3 of the surface land, the results have been fewer and
4 lower paying jobs.

5 Large outflow of larger areas, that goods and
6 services that people cannot acquire local and, with all
7 due respect to our system that we do have, they cannot
8 provide median and educational careers. There are people
9 who can not find jobs at the present.

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10 I'd like to admonish the people that prepared the
11 EIR that it is not sufficient to try to define people out
12 of existence as they have apparently attempted to do
13 here.

14 Mr. Davis was quoted as saying: That since the
15 socioeconomic effects may not have a impact in the EIR,
16 the EIR doesn't -- on the environment, the EIR doesn't
17 have to consider them.

50

18 I resent that the second aqueduct sharpens the
19 effect of these land restrictions on the people and on
20 their local governments. A case can be made for better
21 mitigation measures that have been proposed in chapter
22 fourteen.

23 Now that chapter specially argues that since Los
24 Angeles land policies did not change from the 1970-1990
25 period, no mitigation is required.

1 The reasons that I've cited, I respectfully would
2 really disagree to inadequacy of the chapter. One, it
3 fails to point out that the proposed seventy-five acre
4 land release provisions are insufficient for Inyo to even
5 comply with. It's only nineteenth on the general plan.

6 The following are some land need calculations
7 without even considering any commercial purposes or the
8 twenty-six acre plan for commercial release in Bishop
9 easily illustrates -- and I've gone through the
10 calculations here taking the general land population that
11 is found in the EIR, deducting the present population,
12 using that difference and adjusting the two thirds of
13 Inyo County population intends to live in the Owens
14 Valley. Maybe a little more, but I'm trying to be
15 conservative.

16 But when you divide that by the current two and a
17 half persons per household that our population
18 researchers find, and give an average of four households
19 per acre, we're looking at a land release up and down the
20 valley among all the different towns, of five hundred
21 thirty-six acres less than seventy-five provided.

22 It's a shortfall of four hundred and sixty-one
23 acres. And put that in prospective, compare it to the
24 two hundred and forty-five thousand acres owned by cities
25 including Los Angeles and Inyo County, land releases were

1 identified in every community in the Owens Valley as
2 important considerations in the long-term agreement.

3 They've been addressed in the agreement and,
4 therefore, they should be addressed as far as adequate
5 mitigation is concerned.

6 The policy implication for Inyo County is that it
7 effectively has given up it's ability to plan and manage
8 that portion of its land resources which are not subject
9 to release to the private sector by the City of Los
10 Angeles.

11 The land that I speak of being close to town
12 conserving by urban utility as a resource is essential to
13 our economy and social well being, yours and mine.

14 We are people who form part of the natural
15 environment in Inyo County and has not been clear from
16 public discussion that the Board of Supervisors wishes to
17 place such a major constraint on itself or on future
18 boards in achieving the goals set forth in the county's
19 only previously adopted general plan.

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20 I want to hasten to add that this analysis is not
21 advocating any renter growth or any growth beyond
22 whatsoever what officials have anticipated their general
23 plan and adoption process.

24 The parties should seek a solution for which
25 sufficient land use for every use which have been

1 previously adopted long-term plan for Inyo County.
 2 Obvious solution is to keep releases within the sphere of
 3 influence for urban development already defined in each
 4 California county, including this one, by its local
 5 Agency Formation Commission.

6 I'd like to offer a possible mitigation measure in
 7 the EIR that the Los Angeles City Charter be modified to
 8 make land releases easier for the two parties to achieve.

52

9 And I quote: The balanced approach to supplying
 10 Los Angeles with water for equitable economic development
 11 of both regions and protection of the environment.

12 The second shortfall I think is that the agreement
 13 fails to point out the economics of the proposed
 14 development.

53

15 I will not bore you with a long statistical report
 16 that's been done earlier, but the benefits to Los Angeles
 17 annually for the life of this agreement which has a very
 18 long life, are approximately one and a half million
 19 annual; benefits to Inyo County are approximately two
 20 point two seven million, so five to one against us.

21 It's important that this analysis not callously --
 22 and I don't want anyone to think that that is what I am
 23 doing, not callously tradeoff dollars in exchange for
 24 water or dried up valley, but rather it's important for
 25 those making decisions on the document be aware of the

1 dollars involved, and, therefore, its accompanying
2 environmental impact reports are not fairly balanced.

3 Inyo should seek additional major financial
4 concessions in the agreement to achieve a more equitable
5 financial balance. This would have a possible future
6 effect of increasing the cost to Los Angeles thereby
7 adding a water conservation incentive.

8 Thank you.

9 MR. RAGAN: Thank you very much.

10 Mr. Smith, do you have any additional comments?

11 You're also submitting or --

12 MR. SMITH: Yeah, I'm submitting this.

13 MR. RAGAN: Mark Bagley then followed by Tom Lone
14 Eagle.

15 Mark Bagley.

16 MR. BAGLEY: Right here.

17 MR. RAGAN: Oh, sorry.

18 MR. BAGLEY: Hello. My name is Mark Bagley,
19 speaking as an individual.

20 I live in Bishop.

21 I'm a professional botanist. I work as a
22 freelance environmental consultant in the Eastern Sierra
23 and in the Mojave Desert.

24 I'm a past president of the local Bristol Cone
25 Pine Tree Society of the California Native Plant Society

1 and I'm currently finishing a term on the State Board of
2 Directors Society.

3 However, my comments tonight are given as an
4 individual citizen. The Native Plant Society will
5 provide its comments at another time.

6 First of all, I want to request an extension of
7 the comment period for an additional forty-five days and
8 I was glad to hear that the Board of Supervisors will be
9 making that request to EIP also and to DWP.

10 This is a large and complex document. It's come
11 out in the middle of our November elections, which
12 demanded a lot of citizen participation and time.

13 At the time of the holidays here and the time when
14 we've got two other important environmental documents for
15 our review, the BLM Resource Management Plan and the
16 Anhuysen Busch Water Gathering Plan, I think we just
17 need more time to take a look at this thing.

18 It's a very complex document -- many complex
19 issues.

20 Tonight I want to confine my comments to
21 vegetation issues. That's the part of the document which
22 I've really had time to take a look at so far.

23 Basically, I was very disappointed in what I had
24 to read in the vegetation chapter.

25 I find that the discussion of vegetation is

1 lacking in some very crucial details.

2 Actually, some of them are not details, they're
3 major points that are completely left out.

54 [4 I feel there is a lack of adequate pre-project
5 description on the environmental conditions.

6 There should be a pre-project vegetation map.

7 There's no pre-project vegetation map.

8 The only thing that is mapped are the pre-project
9 irrigated lands.

10 Now there's some excuses made in there as to how
11 difficult the analysis was to make of the pre-project
12 condition, but I feel that you need to do the best job
13 based on the best available information.

14 You obviously are making some conclusions about
15 impacts, but you're not really giving us the pre-project
16 conditions that you're basing those on, and I think by
17 having a map that would be very helpful.

55 [18 There is no indication given in the -- on the
19 pre-project description about how many acres of what kind
20 of vegetation type were estimated to be in the valley.

21 The EIR states that on page ten dash twenty-seven
22 that there are relatively good records that exist for
23 vegetation whose source of water supply was
24 precipitation, the Owens River tributary, lakes and
25 ponds, canals and ditches, springs and seeps and

1 irrigation.

2 However, you didn't use that information to come
3 up with a pre-project vegetation map or even a table
4 which gave an estimate of the number of acres of each
5 type.

6 Need to make that good faith effort to at least
7 estimate the conditions. I realize the information is
8 not there for some precise determination.

9 You mention in the EIR it's difficult to get total
10 agreement on interpretation of air photos.

11 Well, that's probably true, but you should at
12 least present a summary of the range opinion of the
13 experts and give an estimate, or at least the estimated
14 rate of the number of acres of each vegetation in
15 communities, or some idea of where they are located or
16 where located in the valley.

17 One other area that is quite lacking in its
18 pre-project description are plant species of concern or
19 rare plants.

20 In the introduction to chapter ten, a table is
21 presented that lists the plant specie of concern that
22 occur in the valley with about one sentence about general
23 habitat or general occurrence.

24 Well, that's good for an introduction.

25 You get to the pre-project environmental setting

1 part, that of chapter ten, section ten point three, and
2 there's absolutely no mention of plant species if
3 concerned.

4 This is amazing that you could do that.

57

5 You need to have in there some kind of a map or
6 table that tells us where these locations were, what kind
7 of habitats they occurred in specifically, some
8 indication of what we knew about in 1970 or before.

9 Also, we need in there something about new
10 information that came up in the 1980's. For example,
11 Patty Novac, in DWP piece work, in doing the vegetation
12 mapping in '84 to '87 base line identified a lot of
13 locations of her plants, new locations; but '84 was six
14 years ago.

15 There's no analysis of any impacts. Have there be
16 any impacts to any of those newer populations?

17 They're probably not new, we just know about them.

18 Any impacts from '84 to '90?

19 You were supposed to be dealing with impacts from
20 1970 to 1990 and there is really no discussion of
21 pre-project conditions for these rare plants. There is
22 absolutely no mention of them in the impact section.

23 Well, of course, if you don't mention -- if we
24 don't know what's there to begin with, how can you make
25 an impact analysis?

1 You must have pre-project conditions as a basis
2 for comparison in order to determine impacts.

3 That sentence came out of EIR page ten dash one.
4 So if you make a faulty or lacking pre-project analysis,
5 then you're not going to have a good basis to make your
6 impact analysis, and, then, if you don't have a good
7 impact analysis then you can't have a good mitigation
8 program.

9 So with rare plants, you have no mention of them
10 in the impact section and that needs to be corrected.

58

11 You need to at least identify -- you've identified
12 certain kinds of vegetation that have been impacted. You
13 need to at least tell us that those specific areas do not
14 have any known rare plant populations on them, or did
15 they?

16 We don't have that information.

17 We also don't have the -- have that specific
18 information about most of the vegetation areas that you
19 say are impacted in there.

20 In your impact section in chapter ten, you
21 typically, when there is an impact identified, say that
22 vegetation has been impacted.

23 Sometimes you give the location, sometimes it's
24 very general. I think you need to be more specific.

25 Sometimes you're not at all specific about where

1 the vegetation was impacted.

2 We need to know how much vegetation was impacted.

3 Most of the time there is not any estimate of
4 numbers of acres that have been impacted.

5 We need to know what kinds of vegetation,
6 community types have been impacted; not just vegetation.

7 What kind of vegetation?

59

8 For example, there are seven meadow types in the
9 vegetation types of classifications. There are four
10 different marsh types and four different riparian types.
11 We need to know what kind of vegetation is impacted and
12 need to know specifically where, and I was very
13 disappointed to see the lack of detail in that chapter.

14 What you have is often very general and quite
15 vague.

16 If you don't know exactly what the impact was,
17 then how do you know your mitigation is going to really
18 mitigate that impact?

19 We -- you don't.

60

20 We need more details on the impacts. I believe
21 you have that information available.

22 For example, you cite in your discussion in the
23 introductory part of chapter ten on the plant species of
24 concern that you've gotten information from the
25 California Natural University Data Base and Native Plant

1 Society in talking to people, yet you present none or
2 almost none of that information in the EIR that is
3 available.

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4 On the vegetation map you have plenty of aerial
5 photos that you have sited, and I think you've kind of
6 thrown up your hands and said: Well, we just can't come
7 up with anything, but I think you need to do the best
8 with what you got and come up with an estimate of what
9 was there and what must be impacted.

62

10 Now there is also a lack of adequate description
11 of many of the mitigation proposals that you have.

12 We need the details of the mitigation proposals in
13 order to evaluate whether or not they are fully going to
14 mitigate what they're supposed to mitigate.

15 We need the details about the impacts in order to
16 evaluate your analysis of those impacts to see if you
17 included all that should have been included.

18 An example of one particular example of lack of
19 adequate impact analysis and mitigation proposal detail
20 would be the Little Black Rock Springs.

63

21 There you give a poor pre-project description of
22 the vegetation and essentially no description of it in
23 the pre-project setting part of the chapter; but in the
24 impact part you do mention a few of the plants that occur
25 there, but you do not make any mention of the overall

1 flora that was there, and, I believe, someone like Mary
2 DeDecker may have a plant specie list in that area that
3 was prior to the impact.

4 You should at least check with her.

5 There's no area given or size of the marsh and
6 meadow habitats that were there before the impact.

7 There's little discussion of the habitat diversity
8 that was there.

9 What kind of plant communities were there?

10 Was it all the same, one kind of community, or was
11 there adversity communities?

12 All of that is lacking.

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13 The mitigation listed is to maintain a pond that
14 is there with surface or with water that is piped into
15 there or sent by a canal, but no mention at how large the
16 pond is, how extensive are the wetland habitats that
17 occur around it, what vegetation types are supported
18 there.

19 Is there an adequate mitigation for what was lost?

20 We just don't have the details to be able to
21 evaluate that.

22 The decision makers who you're writing this EIR
23 for don't have the information for what they need. This
24 is an example of one of many and it points out some of
25 the kinds of things that need to be addressed in many of

1 the other impacts.

2 On the Lower Owens River Project, I would like to
3 see a summary in there of all of the things that that
4 project is supposed to mitigate.

5 It looks like on every page that that's going to
6 be a mitigation for something.

7 I think it's trying to make it mitigate too much.
8 You're trying to make it mitigate as a compensatory
9 mitigation for a lot of things that are very different
10 than the riparian kind of habitats that will be
11 presumably created in that project.

12 I think it would be a good idea, too, that should
13 be considered as more as mitigation for impacts that have
14 occurred long ago, actually pre this project, rather than
15 mitigations for impact on the current project.

16 As far as grazing, livestock grazing, as mentioned
17 in the EIR under the cumulative effects section, it's
18 correctly recognized as being a cumulative impact.

19 However, there is absolutely no analysis of what
20 those impacts have been from 1970 to 1990, where they've
21 occurred and what impacts are anticipated in the future.

22 I find it amazing that you would put it in as an
23 impact and then not discuss it.

24 Under CEQA, I believe that you need to discuss
25 what the impacts have been, where they occurred and what

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66

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1 you expect in the future, anything you can about a
2 mitigation.

3 You need to discuss the grazing as a cumulative
4 impact as it relates to the project impacts.

5 The future impacts, which are unspecified, are
6 said to be mitigated in the document by continued
7 implementation of a grazing management plan.

8 Five or six points are mentioned in that
9 management plan which are very uninformative.

10 There's not enough information about the plan for
11 us to have any idea what effect it will have.

12 The plan needs to be elaborated. Goals and
13 objectives of the plan need to be stated.

14 Four, I think, of the five points of that plan are
15 informal gathering types of things.

16 Gathering information is not a mitigation.

17 That helps you design a mitigation or put a
18 mitigation into effect, but that is not the mitigation.

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19 If you address all of the items that I have
20 mentioned, I feel that you'll be adding significant new
21 information to the EIR and that CEQA then would require
22 for you to recirculate a new draft so that we, the
23 public, can review the new information and analysis that
24 you have.

25 I think you omitted several impact analyses that

1 should have been made and I think if you do correct that
2 deficiency, we, as the public, need to have a look at
3 that again before this becomes final.

4 In conclusion, I was disappointed that the impacts
5 from 1970 to 1990 were not dealt with more honestly and
6 straightforwardly so that we could follow your logic,
7 your reasoning.

8 I feel that the lack of detail on the pre-project
9 description on the vegetation, the rare plants and
10 livestock grazing, has led to lack of proper impact
11 analysis. This makes the document unacceptable as now
12 written.

13 Important changes must be made or this EIR will go
14 the way of the previous two. The Court will reject it.

15 How many times does it take to get it right?

16 MR. RAGAN: Thank you very much.

17 Tom Lone Eagle then followed by Sam Dean.

18 MR. LONE EAGLE: My name is Tom Lone Eagle. I'm
19 the vice chairman for the Big Pine Paiute-Shoshone
20 Reservation in Big Pine.

21 I have two things.

22 One I will say officially from the tribe then I
23 want to make a small statement as an individual.

24 I'm speaking only to share with you the fact that
25 the Bureau of Indian Affairs has notified the Big Pine

1 tribe that they are unable to make a personal appearance
2 at these water hearings.

3 However, due to the U.S. Government's trust
4 responsibility to Indian tribes of the Owens Valley, the
5 BIA will be making written comments concerning the lack
6 of draft -- lack of the draft EIR in addressing the
7 impacts on the Owens Valley Indian reservations as well
8 as at least one very important statement which totally
9 misrepresented the land exchange agreement between U.S.
10 Government, L.A. DWP and the Owens Valley Indian tribes.

11 I want it publicly known that it is not the intent
12 of the Big Pine tribe to jeopardize a court approved EIR.
13 There should be a way to address these matters in the
14 final draft of the EIR which would eliminate the concerns
15 of the tribes.

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16 I want to make it very clear that the pending long
17 term water agreement does not or cannot include my tribe.
18 We are not a party to that agreement nor did we have
19 input in that agreement.

20 Any issues on water or water rights will be
21 between the U.S. Government, L.A. DWP and the tribes.
22 Inyo County has no legal jurisdiction in any such issues.

23 The long-term agreement must address this more
24 clearly.

25 That's what my tribe says I'm to say.

1 I have a few short things that I want to address.

2 It was mentioned earlier that this seems to only
3 talk about plants and the birds and the bees and these
4 type of things, and the stand has been with L.A. DWP,
5 apparently, and the County that because Indian tribes are
6 on federal lands that we should not be included in these
7 things.

8 What they forget are -- are that the people living
9 on these federal lands are citizens of Inyo County. They
10 vote in Inyo County.

11 So they lacked or failed to recognize the fact
12 that there is no way you can have a water agreement, or
13 anything that would be detrimental or affect the people
14 on these reservations and it not be included in the EIR.

15 I have tried to make known some of the information
16 as I've come along and become privy to such things. I
17 was given a call today, personally, from Washington, D.C.
18 and, apparently, because of the lack of the local Bureau
19 of Indian Affairs offices in Sacramento in having got
20 involved in this sooner in meeting their trust
21 responsibility to the Indian people, Washington itself is
22 going to see that that will be addressed and you will be
23 receiving something from the U.S. Government as to the
24 lack of this being addressed.

25 Thank you very much.

1 MR. RAGAN: Thank you very much.

2 MR. RAGAN: Mr. Dean and then followed by Barbara
3 Toth.

4 MR. DEAN: I have a number of items here, but I
5 think just to -- to not drag this meeting on any longer
6 than I have to, one thing I would like to see addressed
7 and changed in this EIR; at one place we suggest in the
8 EIR and the long-term water agreement that we will be
9 allowed to put some places, it's three some places, it's
10 five new wells in the Bishop Cone.

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11 Reading and studying the Chandler agreement and
12 the Hillside Agreement, I find that the Department of
13 Water and Power has no right to any wells in the Bishop
14 Cone for any reason. Yet, again, a couple of pages over
15 in the EIR, it states that this will abide by the
16 Hillside Agreement.

17 To me that would be an impossibility.

18 So I would like to see this addressed.

19 Thank you.

20 MR. RAGAN: If you have other comments -- if you
21 have other comments, by all means I --

22 MR. DEAN: I'm going to be mailing them in.

23 MR. RAGAN: You'll mail them in?

24 Barbara Toth, followed by Gordon Wiltsie.

25 MS. TOTH: Thank you, Mr. Davis.

1 It's Barbara Toth. You're close.

2 MR. RAGAN: I'm sorry.

3 MS. TOTH: I'd like to comment on the section of
4 the EIR in chapter sixteen, page twenty-one, involving
5 the Bishop Cone.

6 It states that the Bishop Cone well field area
7 currently has nine existing irrigation supply wells with
8 the capacity of twenty-five point seven CFS.

9 There are five proposed new wells that will be
10 added to the Bishop Cone in this agreement. That will
11 increase that capacity to forty-four point two CFS, which
12 is an increase of seventy-two percent.

13 Since it is my understanding that there can be no
14 water export from the Bishop Cone by the City of Los
15 Angeles, I'd like to know why we need an increase of
16 seventy-two percent, what that water is going to be used
17 for, and after it's used where is it going?

18 And I'd also like to know if that is a definite
19 number of new wells or can there be other new wells added
20 at a later time, as well as to the other towns that are
21 mentioned with new wells?

22 MR. RAGAN: So, you want the EIR to be much more
23 specific on those particular issues?

24 MS. TOTH: Yes. Please.

25 MR. RAGAN: Thank you. I have now three more

1 cards. Gordon Wiltsie then followed by Carla
2 Scheidlinger and Norman Bird.

3 MR. WILTSIE: My name is Gordon Wiltsie. I live
4 out in West Bishop. I came really with -- unprepared
5 with remarks, but I notice very few people had spoken
6 about the Bishop Cone.

7 Now we've had several remarks about it.

8 My feelings about the deficiency of the EIR, in
9 discussing the Bishop Cone, are that as we pump more
10 water out of the aquifer to supposedly mitigate and water
11 DWP lands, that is obviously going to re-up water from
12 Bishop Creek that can be exported.

13 And my question is that as we -- we're pumping
14 more water out of the aquifer, we're also not adding the
15 water that used to be spread from Bishop Creek back into
16 the aquifer and I do not see this issue addressed in the
17 environmental impact report and I'm quite concerned about
18 this, what the long-term effect is going to be.

19 As well, another issue that's facing us out in
20 West Bishop is the new Rancho Riata Hydro Project that is
21 proposed that is going to impact the flow of Bishop
22 Creek, and I have not seen this addressed in the
23 Environmental Impact Report.

24 And, as well, on a broader note, getting to
25 speaking of human terms in the agreement here, what the

1 greatest source of income and revenue in this county is
2 tourism and people moving through here, and we're
3 speaking about vegetation and about wildlife, but what is
4 the impact on the valley?

5 What is it going to look like?

6 Is it still going to attract people to come here?
7 Do we still have the wide open spaces?

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8 And I have to say I support the agreement with
9 City of Los Angeles and in many respects their presence
10 has been beneficial in protecting the wide open space
11 necessary to bringing people here, but under the term of
12 the agreement, is this going to change in the future and
13 I think the issue of tourism needs to be addressed in the
14 Environmental Impact Report.

15 MR. RAGAN: Thank you. Thank you very much.

16 MR. WILTSIE: Thank you very much.

17 MR. RAGAN: Carla Scheidlinger and then Norman
18 Bird.

19 MS. SCHEIDLINGER: My name is Carla Scheidlinger.
20 I'm a resident of Bishop. I'm speaking this evening as a
21 private individual.

22 I'd like to address some of the proposed
23 mitigations for vegetation that are described in chapter
24 ten. I'm most concerned about the springs and the seeps.

25 Page ten dash thirty-three asserts that springs

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1 that have been previously seized to flow eventually
2 resume their flow once the ground water pumping seized.

3 If this is in fact the case, and it would appear
4 it has possibilities given that even High Spring,
5 apparently, resumed it's flow in 1986, that an obvious
6 mitigation for this impact would be to reduce pumping
7 until the spring's flow resumes. In fact -- however,
8 this is not what is being proposed as a mitigation for
9 the reduction in spring flows as described on page ten
10 dash sixty-two.

11 At this point, we're asked to accept mitigation in
12 the form of fish hatcheries for Fish Spring and for Big
13 Black Rock Springs. This is definitely a form of
14 compensatory mitigation that's identified as such, and I,
15 for one, question the usefulness of that.

16 If the majority of Inyo County citizens find that
17 this is acceptable, then I suppose we should go ahead
18 with it, but it seems to me it sets a dangerous precedent
19 for what we're willing to trade for our unique natural
20 places and we should not let this slip by unexamined.

21 Little Seeley Springs has been mitigated by a
22 cattle pond and will -- though it does have some elements
23 of riparian vegetation associated with it, these are not
24 the same elements of spring and seep vegetation, although
25 all would be considered in type B -- type D vegetation

1 under the terms of the agreement in the Green Book.

2 Little Black Rock Springs, as Mark points out, has
3 been handled in a similar fashion. It has a diversion to
4 it from Division Creek that is spent to form a marsh of
5 wet land.

6 Once again, the unique spring vegetation has been
7 lost because of the nature of the water and it's flow is
8 very different in a pond supplied by surface water from a
9 single point of entry.

10 The mitigation is proposed as acceptable for the
11 future drying up of springs such as Reinhackle Spring.
12 The mitigation described on ten dash sixty-two states
13 that either ground water will be managed, ground water
14 pumping will be managed to avoid causing reduction and
15 flow from the spring or surface water will be supplied to
16 avoid causing decreases or changes in vegetation.

17 The second possibility is unacceptable.

18 It's bad enough that some springs having dried up
19 and then inappropriately mitigated must not be allowed to
20 happen in the future.

21 I believe that none of the springs described in
22 the EIR have been acceptably mitigated heretofore and the
23 impacts have not been reduced to less than significant
24 levels.

25 The only way to mitigate the loss of the spring is

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1 to bring it back or to make a more serious attempt to
2 mimic flow patterns and vegetation.

3 One possibility of, conceptual sort of idea might
4 be to introduce something like a perforated pipe along
5 the entire uphill edge upon a previously existing spring
6 field and allow the water to enter the region to a
7 similar flow of water to what may have been natural.
8 This would be a far better practice to marshes, streams
9 or whatever different types of wet lands in a similar
10 vain.

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11 I'm concerned about the Lower Owens River
12 mitigation. It is my understanding that the Lower Owens
13 River is a negotiated portion of the agreement that it is
14 a desirable outcome for Inyo County and it was not
15 identified in anyway for mitigation to damage other than
16 its own drying up.

17 The EIR indicates that the following impact will
18 be mitigated by Lower Owens River, so here's your list,
19 Mark, loss of all unnamed springs and assess it riparian
20 and meadow vegetation. This is impact ten dash fourteen.

21 It should be noted here that riparian communities
22 are acknowledged by vegetation experts to be
23 distinguished from those of wet land such as springs and
24 seeps.

25 It may be appropriate to mitigate riparians with

1 features such as the Lower Owens River but not to
2 mitigate springs and seeps this way. Acreage of all
3 these unnamed springs and their associated vegetation is
4 unspecified.

5 The second thing that the Lower Owens River
6 Project will mitigate is the loss of meadow and riparian
7 vegetation slide by irrigation tail water that has been
8 discontinued.

9 This is impact ten dash seventeen.

10 Once again, the acreage of such diminishing
11 resources has not been specified.

12 And the final one -- no, the -- yes, the final one
13 is the marsh vegetation in the Thibaut Saw Mill
14 vegetation. This is ten dash twenty.

15 Once again, the acreage of all of the loss has not
16 been specified. The Thibaut Springs of what has been
17 lost has not been specified, but that is the third thing
18 that the Lower Owens River is supposed to mitigate.

19 Now all of these habitats were watered by the
20 valley. They provided a rich mosaic of wet land habitat,
21 a rich mosaic of wet land habitat in the otherwise dry
22 conditions to abandon this flotation waste quality in
23 favor of a single corridor of wet land will not serve the
24 same ecological function as the widely dispersed wet
25 land.

1 I favor having this Lower Owens River Project, but
2 it should not be tied in anyway to the mitigation of the
3 above impacts.

4 Furthermore, if you do persist in considering it
5 as mitigation for anything at all, it will need to be
6 described in a great deal more detail.

7 As of now there is only the broadest concept
8 balance notion of what the project entails.

9 It cannot properly be considered mitigation of
10 anything unless it is much clearer what the project will
11 actually accomplish.

12 I -- I'd also like to mention a couple of things
13 where I feel there's going to be changes necessary in the
14 agreement to assure that future impacts are avoided.

15 I'm not totally thrilled with a lot of the
16 mitigations that have been described for existing
17 impacts. The agreement itself is supposed to be a self
18 mitigating project in that it will avoid impact rather
19 than having to mitigate them.

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20 Briefly, but specifically, one change is going to
21 have to be a further spelling out of the definition of
22 significance of impacts.

23 It seems to me that any further decrease in life
24 cover from the 1984 -- to 1984 levels which is determined
25 to be both measurable and attributable to pumping must

1 automatically be called significant.

2 The second point is we need a program to detect at
3 least a ten percent change in vegetation.

4 We don't have this right now. Our monitoring
5 techniques are not adequate for that.

6 Until this is possible we need a much stronger
7 drought policy that would be based on concepts with safer
8 yield.

9 Third more, there must be no allowance for
10 unilateral pump turn ons by Los Angeles. These should
11 remain decisions for the technical group and for the
12 standing committee.

13 I feel at the very minimum these changes are going
14 to be necessary or else any future potential impacts
15 cannot be said to be adequately mitigated by avoidance as
16 proposed to do with the EIR.

17 Thanks for the opportunity to comment.

18 MR. RAGAN: Thank you very much.

19 Norman Bird.

20 MR. BIRD: I don't have many comments on this as
21 far as all the reports are concerned.

22 Main thing that I know of is been digging in the
23 valley for about the last twenty-eight -- twenty-five
24 years and you can go from one end of town to the other
25 and the water level has dropped from five to ten feet.

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1 We have a commercial complex out in Laws, out
2 there, that we dug a well in -- in 1986 and at that time
3 we had forty foot of standing water in the well.

4 Right now it's standing, as of about four months
5 ago, it's standing about eighty-nine on some, so when
6 you're talking about no effect on the water level in Laws
7 area and hasn't been disturbed, it definitely has been
8 disturbed.

9 And as far as quotations that they had of what
10 water level is in Laws, they're nowhere close.

11 Thank you.

12 MR. RAGAN: Thank you very much.

13 Those are all the cards I've received. Are there
14 others that would like to speak?

15 Yes, sir.

16 MR. deBOTTARI: I'd like to come up.

17 MR. RAGAN: If you repeat -- if you have spoken
18 before, if you will repeat your name again. Since I
19 already mispronounced your name once, I won't try.

20 MR. deBOTTARI: Louis deBottari.

21 MR. RAGAN: Yeah.

22 MR. deBOTTARI: I'd like to mention the fact on
23 the cumulative impacts.

24 I don't know how many people have read this, but
25 if I were living in Bishop or in Inyo County, I would be

1 furious.

2 Since 1913, Los Angeles water management practices
3 have led to the drying up of Owens Lake, adversely
4 affected parts of the Owens River, its tributary streams
5 and associated vegetation and wild life, adversely
6 affected areas of ground water, deep vegetation, dried up
7 springs and caused limitations on and disruptions of
8 population and economic opportunities.

9 Now on the other hand, Los Angeles land management
10 policies have prevented uncontrolled urban development
11 and the pollution and destruction of natural habitats
12 that inevitably would accompany it.

13 Now if I were in the planning or in the control of
14 a county, I'd be livid that we can't control our own
15 destiny and that L.A. has to do it.

16 I think that is -- that's what they're saying is
17 that you people can't control your own urban development.

18 That is -- to me, is terrible.

19 Then it says -- the reason I'm reading this is
20 they're talking about the cumulative impacts which is the
21 impact of projects past, present and anticipated.

22 This is part of the requirements of CEQA.

23 Then they talk about the degree of significance of
24 the cumulative impact of Los Angeles activities.

25 You guys say, well, we got to look at it as

1 compared to the pristine Owens Valley before man came in,
2 an agricultural Owens Valley in the early nineteen
3 hundreds, conditions in 1970, or are to an Owens Valley
4 as it may appear today had Los Angeles never entered the
5 valley and had the lands remained in a private ownership,
6 and we can only speculate on the last two.

7 To prescribed mitigation to reduce all of the
8 overall cumulative impacts of Los Angeles activities in
9 the Owens Valley is beyond the scope of the EIR.

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10 I submit that desalinization is an impact that
11 would mitigate all the things. Thank you.

12 MR. RAGAN: Thank you very much.

13 Other comments?

14 A VOICE: Where's the coffee pot?

15 MR. RAGAN: Pardon?

16 A VOICE: Where's the coffee and the cookies?

17 MR. RAGAN: Actually, you missed the bar at the
18 break.

19 Yes, Tom?

20 MR. LONE EAGLE: Could I make one comment?

21 MR. RAGAN: But I would like you to come to the
22 microphone again, assuming you want it on the record.

23 MR. LONE EAGLE: Yes. My name is Tom Lone Eagle.

24 I've heard mentioned on several occasions the fact
25 that the Owens Dry Lake was not to be a part of all of

1 this, the actual impact.

2 Well, that may be true and the state maybe can say
3 that the county can't do anything about it, City of
4 Bishop can't, but they darn well can't say that the U.S.
5 Government can't.

6 And the government is going to, I can assure you,
7 going to include Owens Dry Lake in what that does -- is
8 doing to the seven reservations in this valley, and so
9 the state isn't -- doesn't, the state court doesn't have
10 that right because the U.S. courts will handle it if the
11 state court doesn't.

12 Thank you very much.

13 MR. RAGAN: Other comments?

14 Let me just say in closing that I am an outsider
15 here in this type of deal, read some of the summary
16 documents; I'm really most impressed. You have given the
17 consultant, in my view, some of the most detailed
18 comments and concerns.

19 Clearly, this is a public meeting like I conducted
20 like no other that everybody, it's clear to me, has read
21 the damned document but I really commend you on that, and
22 from my standpoint as a facilitator, in having done over
23 two hundred of these, you should be very proud of
24 yourselves and I think the information that you've given
25 is outstanding.

1 Thank you very much.

2 (Ends of proceedings.)

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1 CERTIFICATE OF CERTIFIED SHORTHAND REPORTER

2 State of California)
3 County of Inyo) ss.

4 I, Diane Alexis Hart, CSR No. 2367, do hereby
5 certify that the aforementioned proceedings were taken
6 down in shorthand by me, a certified shorthand reporter,
7 and a disinterested person, at the time and place therein
8 stated, and that the testimony of said witnesses
9 constitutes a full, true and correct transcription of my
10 shorthand notes and was thereafter reduced to typewriting
11 under my direction and supervision to the best of my
12 ability.

13 Dated: Tuesday, January 29, 1991.

14

15

16 _____
DIANE ALEXIS HART, CSR #2367

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**RESPONSES TO COMMENTS
LETTER E3**

RESPONSES E3-1 through E3-6

Please refer to responses to Letter B-1

RESPONSE E3-7

The issue of significant effect is described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Please refer to response to master comment PD-18 regarding the use of the term "significant" in the Agreement. Also, see response to master comment MT-7.

Please refer to response to master comment VE-8 regarding the Laws area.

RESPONSE E3-8

Comment noted. The video tape submittal referred to in this comment was accepted. The locality referred to is in the Five Bridges area north of Bishop. Impacts to vegetation in this region are discussed under Impact 10-12 on page 10-58 of the Draft EIR. Also see response to master comment VE-8 and Appendix B-5 for a description of the mitigation plan for the Fire Bridges area.

RESPONSE E3-9

Please see response to E3-8 above.

RESPONSE E3-10

The data requested is available at the Inyo County Water Department.

RESPONSE E3-11

Please refer to response to master comment PD-11 for a discussion of Inyo County's financial participation in the Agreement.

RESPONSE E3-12

Comment noted. However, the legal mechanism for implementation is different.

RESPONSE E3-13

The commentor misunderstands the purpose of the EIR. Please refer to Chapter 1, Introduction of the Draft EIR for a description of the EIR process.

RESPONSE E3-14

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE E3-15

Desalination is discussed in Chapter 6, Alternatives in the Draft EIR. Also see response to master comment AL-2.

RESPONSE E3-16

Please refer to responses to master comments PD-8, PD-9, PD-10 for a detailed discussion of the relationship between the proposed project, Draft EIR and Indian tribes.

RESPONSE E3-17

Comment noted. Please see Table 4-3 in Chapter 4 of the Draft EIR for a description of E/M projects already implemented or in progress.

RESPONSE E3-18

The effects of reduced spring flow between 1970 and 1990 are addressed in Chapter 9, Water Resources and Chapter 10, Vegetation of the Draft EIR.

RESPONSE E3-19

Please refer to response to master comment PD-13 regarding groundwater pumping on the Bishop Cone. Also see Chapter 16, Ancillary Facilities in the Draft EIR, section 16.4 (page 16-41), for a description of pumping on the Bishop Cone.

RESPONSE E3-20

No statistical analysis is made by the selection of these cities; rather, they are shown to provide an idea as to the levels of water use in various cities in the western United States.

RESPONSE E3-21

It is unclear where the two statements quoted in comment 21 occur in the Draft EIR. However, Ms. Matlick is referred to USGS Open-File Report 89-260 by Stephen Sorenson and others for a discussion of the role of groundwater and precipitation in the health and vigor of Owens Valley vegetation.

RESPONSE E3-22

Please see Table 3 of the 1991-92 Annual Pumping Program, which is available at the Inyo County Water Department.

RESPONSE E3-23

Text correction is noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSES E3-24 through E3-33

Please see responses to Letter C-1. Discrepancy related to vegetation impacts.

RESPONSE E3-34

The issue of groundwater mining over a 20-year period is addressed in response to master comment PD-12.

RESPONSE E3-35

Please refer to responses to master comments PD-3 and AQ-1 regarding Owens Lake.

RESPONSES E3-36 and E3-37

Please see 1990-91 and 1991-92 annual pumping programs, available at the Inyo County Water Department.

RESPONSE E3-38

A goal of the Agreement is to avoid impacts to private wells. Please refer to response to master comment PD-4 and AF-2.

RESPONSE E3-39

This comment expresses a personal opinion unrelated to the content of the Draft EIR. Water level information is available at the Inyo County Water Department.

RESPONSE E3-40 and E3-41

Please refer to response to master comment PD-12 for a discussion of groundwater mining.

RESPONSE E3-42

Please refer to response to master comment PD-17 regarding the drought recovery policy.

RESPONSE E3-43

Comment noted. No further response is required.

RESPONSE E3-44

Comment noted. No further response is required.

RESPONSE E3-45

Comment noted. No further response is required.

RESPONSE E3-46

Comment noted. No further response is required.

RESPONSE E3-47

Comment noted. No further response is required.

RESPONSE E3-48

Comment noted. No further response is required.

RESPONSE E3-49

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE E3-50

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE E3-51

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE E3-52

Comment noted. No further response is required.

RESPONSE E3-53

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. No response is required.

RESPONSE E3-54

Comment noted. Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE E3-55

Please see response to E3-54 above.

RESPONSE E3-56

Please see response to E3-54 above.

RESPONSE E3-57 and E3-58

Please refer to response A4-79 in Letter A-4.

RESPONSE E3-59

It would be very difficult, if not impossible, to assign plant communities defined in the 1984-87 inventory to all areas of vegetation impact under the project. Earlier biologists used a different set of communities that are not always compatible with those of the present inventory. Any such attempt at this type of analysis would be anecdotal at best. Please refer to response to master comment VE-2 on site-specific analysis and VE-5 and EA-1 regarding the Jaques report and pre-project conditions.

RESPONSE E3-60

Comment noted.

RESPONSE E3-61

Please refer to responses to master comments EA-1, VE-5, and Appendix B-2 for a discussion of pre-project conditions and aerial photo interpretation.

RESPONSE E3-62

This comment does not cite a specific mitigation measure for which additional information is needed. The commentor is referred to the response to master comments MT-1 through MT-8 for discussion of mitigation measures.

RESPONSE E3-63

Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE E3-64

See response E3-62 above; also see Appendix A-1 regarding evaluation of selected springs in the Owens Valley.

RESPONSE E3-65

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; and MT-6 for a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E3-66

Comment noted. No further response is required.

RESPONSE E3-67

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE E3-68

Comment noted. Information along the lines outlined in this comment have been provided in this Final EIR, with no requirement for recirculation.

RESPONSE E3-69

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE E3-70

Please refer to response to master comment PD-8 regarding the relationship of Indian tribes to the Agreement; and response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE E3-71

Please refer to response to master comment PD-13 for a discussion of groundwater pumping on the Bishop Cone.

RESPONSE E3-72

Please refer to response to master comment PD-13 for a discussion of groundwater pumping on the Bishop Cone.

RESPONSE E3-73

Please refer to response to master comment PD-13 for a discussion of groundwater pumping on the Bishop Cone.

RESPONSE E3-74

The proposed Rancho Riata Hydroelectric project is not within the scope of this EIR.

RESPONSE E3-75

Tourism as a component of the regional economy is discussed in Chapter 14, Land Use and Economic Development in the Draft EIR.

RESPONSE E3-76

This comment expresses an opinion on the merits of the project and does not relate to the content of the Draft EIR. Comment noted. Please see response C11-34 in Letter C-11 and response to master comment MT-3 regarding mitigation under CEQA.

RESPONSE E3-77

Please refer to responses to master comments PD-5 and WA-4 for a discussion of protection of springs and seeps in general, and Reinhackle Spring in particular.

RESPONSE E3-78

This comment presents an alternative approach to on-site mitigation of springs. The EIR authors thank the commentor for her submittal. The concept offered will be considered by the Technical Group.

RESPONSE E3-79

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; and MT-6 for a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E3-80

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; and MT-6 for a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E3-81

Comment noted. The Technical Group would refine criteria for significance in the monitoring program as more data is collected, analyzed, and evaluated. Also see response to master comment PD-7 for a discussion of monitoring under the Green Book.

RESPONSE E3-82

Comment noted regarding monitoring techniques. Please refer to response to master comment PD-17 regarding the drought recovery policy.

RESPONSE E3-83

Please refer to response to master comment PD-6 for a discussion of the issue of unilateral well turn on/off.

RESPONSE E3-84

Comment noted. Information concerning water levels is available at the Inyo County Water Department.

RESPONSE E3-85

Desalination is discussed in Chapter 6, Alternatives of the Draft EIR. Also see response to master comment AL-2.

Letter E4

December 12, 1990, Statham Hall, Lone Pine, California

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Public Meeting

Draft Environmental Impact Report

WATER FROM THE OWENS VALLEY TO SUPPLY

THE SECOND LOS ANGELES AQUEDUCT

Wednesday, December 12, 1990
Statham Hall, Lone Pine, California

Facilitator: James Ragan
Senior Vice President: John Davis

Reported by: Diane Alexis Hart, CSR No. 2367

ORIGINAL



1

WEDNESDAY, DECEMBER 12, 1990

2

Statham Hall, Lone Pine, California

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6

MR. RAGAN: At the moment I have seven, seven people who have indicated they would like to speak.

8

9

If anybody else have cards, I'll take them any time and I will open it up, but I will call on those seven people first.

10

11

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15

First, call on Robert Hayner and then followed by Michael Prather, and I will be doing that, calling one person and the next person so that you're not, except for Mr. Hayner, you're not caught totally unawares as when you're invited to the microphone.

16

17

18

19

MR. HAYNER: Okay. First of all, I've got -- it's actually two, two things that I want to address in the EIR, and these both pertain to the Lower Owens River Project.

20

21

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24

25

First of all, I'd like to, if possible, read into the record state law, Fish and Game Code section 5937, which basically states that the responsibility of the dam office is to maintain an adequate flow of water below the dam to sustain existing fisheries.

And, so, based on that, the first thing I'd like

1 to address in volume two under section ten. This is page
2 B-34.

3 It states in here: (Reading)

4 Enhancement and mitigation
5 projects. All existing enhancement and
6 mitigation projects will continue unless
7 the County Board of Supervisors and the
8 department acting through the standing
9 committee agree to modify or discontinues
10 the project.

11 I'd like for it to be noted that if that's done,
12 then that would be in direct violation of this state law
13 and I'd like for that to be noted in the EIR.

14 Another question that I have is on this pump back
15 station which is part of the Lower Owens River Project.

16 And what I would like to -- I'd like for somebody
17 to answer to me is why it is that taxpayers in the
18 county, according to this, would have to come up with
19 some three and three quarter million dollars to assist
20 DWP in repairing the damages that they've done to the
21 valley?

22 I think that should be totally eliminated. I
23 think the responsibility for taking care of the Lower
24 Owens River Project is the sole responsibility of the Los
25 Angeles Department of Water and Power because it was

1 their doing, and I'd like those addressed.

2 Thank you.

3 MR. RAGAN: Thank you very much.

4 I'll try to pronounce the name as best I can.

5 Michael Prather.

6 MR. PRATHER: Long A.

7 MR. RAGAN: Prather. Then followed by Vincent
8 Yoder.

9 Can I also -- and let me -- I'm sorry to interrupt
10 you and I forgot to say your name and, just for the
11 record, the first was Robert Hayner and representing
12 Owens Valley Warm Water Fishing Association, so that --
13 I'm sorry.

14 If you are representing an organization, I want
15 that, even though I have the list, if you could give your
16 name and that organization as well.

17 MR. PRATHER: My name is Michael Prather and I'm
18 representing the Toiyabe Chapter of the Sierra Club.

19 I'd like to first call for an extension for the
20 comment period of forty five days for the following
21 reasons:

22 Many of us that are active in environmental and
23 conservation causes are seeing quite a few EIR's at this
24 time, EIS's. There's a major one in the Bureau of Land
25 Management, their resource Management Plan.

1 There is a local EIR for the Cabin Bar property
2 that's currently out, and then not an EIR, but it almost
3 should be, is Christmas and New Years.

4 It just -- it's very difficult time to have people
5 finalize their comments and come forward with good
6 constructive suggestions.

7 Okay. Now that that's out of the way, I'd like to
8 address several, several issues.

9 I'll have many more comments in writing towards
10 the end of the comment period.

11 On wildlife, the wildlife section in general is,
12 is the weakest section I've ever seen in any EIR, EIS
13 anywhere.

14 Specifically speaking about the treatment of birds
15 and the wildlife.

16 Birds are an indicator of a healthy environment.
17 They're easily seen. You can get a good quick read on
18 the health of the ecco system by the birds. The taxonomy
19 or nomenclature of the birds is more than ten years out
20 of date.

21 The birds are misnamed. Status of the bird is
22 consistently incorrect.

23 Monitoring of wildlife, including birds, is
24 extremely inadequate. Basically, one sentence that lists
25 several monitoring actions that will take place, but no

1 invitation for the public to participate or any specific
2 mention of methodology or reporting to the public of
3 those monitoring efforts.

4 There has been no attempt made to look back on
5 wetlands and riparian species of birds lost.

6 A wildlife biologist could look at what's been
7 existing wetlands and riparian and make accurate
8 predictions on the kinds of birds that were lost, and
9 many of these birds in California are sensitive birds,
10 the ones that are tied to water.

11 There's little research that has been done on the
12 older surveys, the surveys that came through in the
13 eighteen hundreds, and virtually no modern literature
14 search at all.

4 15 As a suggestion, I would ask the writers to look
16 at the wildlife section of the Cabin Bar EIR which is
17 highly scientific, extremely thorough, and might serve as
18 a standard.

5 19 Regarding sensitive plants, these plants have not
20 been mapped accurately. There are no specific plans in
21 there for the public to see about the monitoring of these
22 plants, and plans for their recovery, if necessary.

6 23 Regarding grazing, no program is known on grazing
24 currently by the public.

25 The public has never been involved in grazing on

1 DWP lands, so we have no way of knowing what it means
2 when the document says that the existing management will
3 continue.

4 The public cannot judge what would be continuing.

5 They -- the laws would require that the public
6 been given enough information to see whether that would
7 be adequate.

8 We are lacking what is the condition of the range,
9 the transinet (phonetic) range, the utilization, the
10 methods of grazing, the monitoring.

11 We would like DWP not only to meet its CEQA
12 obligations in regards to their range program currently,
13 we would like this to go into the future.

14 The public, interested individuals, interested
15 organizations, people with affected interests, deserve to
16 be involved in the grazing program on the City of Los
17 Angeles lands in the Owens Valley.

18 I am not an anti cow person. Grazing has value.
19 Basically the wet areas out there are wet because there
20 are cows on them, and if there weren't cows on them I'm
21 convinced they would be dry.

22 But the standards of the grazing program are
23 inadequate. They are sub par. They are not up to the
24 standards of adjacent Bureau of Land Management lands or
25 forest service areas.

1 Regarding the Lower Owens River, I think it's an
2 incredibly fine project. It's a historic project done in
3 the American West to rewater a stream, certainly to have
4 a stream rewatered by the City of Los Angeles.

8

5 I am disturbed by possibilities of shut offs or
6 reductions of water if standing committees or the
7 governing bodies see that that should be done.

8 I'm concerned that the Lower Owens River should
9 have a -- have water in it and it should -- it should
10 stay there and water should be cut back, reduced
11 elsewhere.

12 The river exists as a major mitigation, a
13 compensatory mitigation.

14 I believe that the river should mitigate itself
15 and not other cites.

16 Another weakness, I think, in the Lower Owens
17 Project is that it represents a thin green line that
18 would be replacing networks of wetlands and diverse ecco
19 systems, and that is not -- that is not really a fair
20 trade.

9

21 A thin green line reaching X acres should not be
22 allowed to, to stand as compensation for the loss of
23 tremendous diversity of wetlands.

24 The project itself is rather ill-defined.

25 There is so much going on the Lower Owens, it's to

1 take the place of the seeps, the loss of the seeps and
2 springs and flowing wells. It's basically a catchall
3 mitigation that the public needs to know more.

4 If so much is going to be riding on this project,
5 it needs to be better defined.

6 The public needs to be involved in the design of
7 that project and the public needs to be involved in the
8 development of any management plan on that project.

9 I'm going to take more than five minutes.

10 MR. RAGAN: I mean, yes, less than some of them.

11 MR. PRATHER: Fine.

12 MR. RAGAN: If you're asking me something like
13 that, what are you say?

14 MR. PRATHER: Not a half an hour. I'll start
15 covering anyhow, so --

16 I believe that there really needs to be more
17 wetlands mitigations than the Lower Owens.

18 For example, at Keeler, at the Keeler artesian
19 wells that the city is involved in, I think those need to
20 be definitely kept alive. They should not be shut down
21 in any way as a mitigation for shore birds.

22 Shore bird habitat is in very short supply in the
23 valley. I think the Tulare Swamp near Thiebaut should be
24 brought back; Hines Spring should be much larger. It's
25 currently dead, but, attempting to bring it back to one

10

1 acre, it should be more like twenty or thirty or forty
2 acres through a project, currently dry, should have
3 steady water in it all the time.

4 Reinhackle Spring, north of Lone Pine, is the last
5 of a real water heritage in the Owens Valley. It is the
6 largest still flowing natural spring in the southern
7 valley, as far as I can tell.

8 It has many unique features. It represents the
9 way things used to be.

10 The Independence Spring Fields are gone, the seeps
11 and the wells are slowly drying, and Reinhackle Spring is
12 almost all that's left there.

13 Reinhackle Springs should be left alone. It
14 should be a mitigation. It should be an avoidance of an
15 impact.

16 Three of the fifteen new wells are scheduled to be
17 drilled just up slope from Reinhackle Spring.

18 There's no real specific explanation, explanation
19 for the -- of the need for these new wells.

20 I believe, really, that there should be no new
21 fifteen wells until the public can see that this
22 agreement really does work with its safeguards, that it
23 has a proven, tested record in the field.

24 In the case of damage to some of these springs and
25 wetlands, language allows surface water to be provided as

1 happened at Seeley Springs. This cannot mitigate a
2 natural spring.

3 Everything suddenly becomes artificial with the
4 application of surface water and quantity without quality
5 is the compensation.

6 Regarding divestment of wetlands, or, excuse me,
7 divestment of land in the agreement, these lands in
8 general are green lands. They are wetlands either
9 subsurface or surface irrigated pastures in Bishop and
10 Big Pine, and in an agreement where vegetation protection
11 is the goal, wetlands should not be sold off for
12 commercial strip development.

13 Alternative cites exist, and I'll finish.

14 The hatcheries have always been a problem here.
15 We've had our two largest springs killed by the drilling
16 of those wells, Fish Springs and Blackrock, and we
17 basically grow fish. That was the mitigation.

18 I think that the water that comes out of those
19 hatcheries should be used in some sort of a wetlands
20 project, creation of ponds and marshes, et cetera, that
21 tail water should be allowed to be used in a more
22 beneficial way for the valley than just being in a ditch
23 or a canal and going straight into the river or the
24 aqueduct system.

25 And thank you for giving me the time.

11

12

1 MR. RAGAN: Thank you very much.

2 Vincent Yoder followed by Lorraine Peterson.

3 MR. YODER: Thank you.

4 There is inevitably --

5 MR. RAGAN: Repeat your name and if you are
6 representing an organization.

7 MR. YODER: Yes. Vincent Yoder, resident of Lone
8 Pine speaking as a member of the California Native Plant
9 Society.

10 MR. RAGAN: Okay. Thank you.

11 MR. YODER: There will be a little overlap
12 occasionally, I'm sure. As we go on more and more
13 speakers are going to touch upon the same subjects so
14 part of my presentation will parallel Mr. Prather's.

15 This draft EIR and it's two appendices have some
16 major strengths and for this we are supportive.

17 It has, however, some glaring weaknesses and these
18 must be strengthened before the agreement can set the
19 stage properly for the long-term protection of the Owens
20 Valley.

21 First, the Town of Lone Pine was reportedly named
22 after a single large pine which grew west of town several
23 hundred feet above the aqueduct.

24 This was most likely a hybrid Ponderosa Pine
25 similar to those now growing along other Owens Valley

1 creeks such as Independence, the south fork of Oak Creek,
2 Big Pine, Bishop and Lower Rock Creek.

3 They are remnants of a presumed once larger forest
4 of Ponderosa Pines which grew along the lower slope of
5 the Sierras, and the area was much wetter many thousands
6 of years ago.

7 A young yellow pine, presumably a Ponderosa Pine,
8 since the other yellow pines in the area are all Jeffery
9 Pine, and grow above seventy-five hundred feet or so, far
10 up the Sierra slopes, a young yellow pine grows just west
11 of the aqueduct, and Lone Pine now has replacement for
12 it's one unique parent tree now long gone.

13 This tree about twenty feet high is, however,
14 threatened by a proposed new pump as indicated in chapter
15 six ten and as shown on figure sixteen dash eleven on
16 page sixteen dash thirty.

17 This pump could cause the trees demise if the
18 ground water table is significantly reduced.

19 It is expected that eventually this tree, if
20 undisturbed, will get a hundred feet tall with a three
21 foot base.

22 Drying of a large tree cannot be quickly reversed.

23 At the time it is visible it is too late and
24 permanent damage can occur.

25 Even though it is located near a small ditch of

1 water in Lone Pine, this ditch itself would not be enough
2 for a large mature tree with a widely spread root system.

3 Most of the tree's roots die. If most of the
4 roots die the tree would die, too.

5 This pump must be sighted, if it exists at all, in
6 the future, as to make it absolutely certain that no harm
7 comes to this natural unique Lone Pine tree.

8 Another point that I wish to make is in regard to
9 one of the few remaining springs in the valley. It is
10 called Reinhackle Spring and is sighted about three
11 quarters of a mile northeast of the Alabama Gates.

12 There are other natural springs and seeps in the
13 valley but none such as this.

14 After four years of drought it is still flowing at
15 an estimated one and a half cubic feet per second.

16 It has a large pond and marshy seep area in
17 connection with it which houses Sorel and Virginia Rails
18 even as I speak.

19 Three snipe were there a week or so ago when I
20 visited. The flow from this spring provides dozens of
21 acres of pasture irrigation and wet meadows. It supports
22 a large growth of willow and cottonwoods, shade and
23 shelter for the valley's elk.

24 All springs are important in the desert and this
25 one is especially important because it is a remnant of

1 what was once common in the valley, yet it is threatened
2 by the proposed installation of three new pumps as shown
3 in figure six ten dash 9-A on page sixteen dash
4 twenty-five.

5 To have this spring dry up even temporarily due to
6 pumping is unacceptable, and yet this is considered to be
7 quite likely by hydrologist Phil Hutchinson cited on page
8 sixteen dash thirty-five.

9 These pumps must be located to reduce this
10 likelihood to near zero. Springs provide a special
11 wetland habitat which cannot be mitigated adequately.

12 Reduction of a flow for significant periods, or
13 frequent partial reduction, will permanently alter the
14 habitat in its value and it cannot be replaced once
15 affected.

16 Well, I could go on and on but there isn't time
17 now. My organization will submit lengthy detailed
18 comments.

19 We will certainly, strongly emphasize the need for
20 a managed grazing program which must consider the
21 cumulative impacts of grazing and water management.

22 What is the value to the welfare of the vegetation
23 in attempting to bring about it's recovery from over
24 pumping if it is subjected to concentrated grazing
25 pressures?

13

14

1 The grazing management program must be fully
2 analyzed and the issuance of grazing permits be subject
3 to CEQA review by the public.

4 Thank you for providing us with an opportunity to
5 make preliminary comments upon these important documents.

6 If I may comment briefly upon the introduction
7 where it is mentioned that the city felt there were no
8 significant impacts on cultural values and the geology
9 of -- the geology of the valley, I would like to point
10 out that in peripheral times, tens of thousands of years
11 ago, there was a very large lake in this valley which ran
12 over to the south through Fossil Falls into China Lake.

13 The level of that lake at that time was
14 essentially the same as the aqueduct route which now goes
15 between the Alabama Hills, the Alabama Gates and its out
16 fall through into Haywood.

17 Any cultural existence -- remains which would have
18 existed along that ancient lake bed have been totally
19 destroyed by the construction of the aqueduct, so if
20 there were any now we would not know what they were or
21 their significance.

22 On the easterly side of the lake bed above
23 Swansee, just a little bit north of Swansee, are remnants
24 of the ancient lake bed and a bit of the shore line left
25 undisturbed.

1 There certainly would have been also remnants left
2 along the westerly shore of the lake along the Alabama
3 Hills which might have had significant geological value
4 had we now -- had they remained and we could exam them;
5 but, of course, they're now destroyed by the construction
6 of the aqueduct.

7 So there have been certainly geological
8 disturbances, and perhaps even cultural disturbances, by
9 construction of the aqueduct.

10 MR. RAGAN: Thank you very much.

11 MR. YODER: Thank you.

12 MR. RAGAN: You're submitting that in writing as
13 well this evening?

14 MR. YODER: I will give this to the court
15 reporter.

16 MR. RAGAN: Lorraine Peterson followed by Marshall
17 Cohen.

18 MS. PETERSON: My name is Lorraine Peterson. I'm
19 just a citizen of Lone Pine and this is my concern:

20 On page three of the December 2nd issue of the
21 Water Reporter, item number nine says: (Reading)

22 Once a new five hundred thousand
23 gallon reservoir is in service, ground
24 water from the wells supplying the Lone
25 Pine water system will no longer be

1 exported.

2 No date.

3 Are they going to build it next year, ten years
4 from now?

5 I'm very curious about that.

6 There is a great lack of perimeters in time when
7 they're going to do all these mitigation things.

8 MR. RAGAN: You would like the mitigation plan in
9 the EIR to specify a time period?

10 MS. PETERSON: At least give us a ball park
11 number.

12 MR. RAGAN: Maybe you want something more specific
13 than that, when it would happen?

14 MS. PETERSON: In my life time. This is what I'm
15 kind of interested in.

16 And the other thing that something in the L.A.
17 Times the other day, Mayor Bradley decided to flood a
18 section of the Sepulveda Basin to provide a habitat for
19 water fall and he's using our water to do it and I didn't
20 like it a bit.

21 Thank you very much.

22 MR. RAGAN: Thank you.

23 MR. RAGAN: Marshall Cohen followed by Joy Wilson.

24 MR. COHEN: It takes a woman to lighten things up
25 and be serious at the same time.

1 As a very new resident of Lone Pine, I'd like to
2 provide an overview either out of ignorance or out of
3 optimism.

4 Press reports, media reports have contained the
5 statement by reporters that there's been a dearth of
6 public comments.

7 Well, it seems like this meeting is not in that
8 category, which I think is very healthy.

9 So in putting my ore in this water and hoping that
10 others of the new world would be encouraged to speak
11 their thoughts, I'm reminded of some cases where
12 established practices, either legally standing practice
13 or practices, in fact, without legal standing, were
14 sometimes reversed by either legislation or the courts.

15 I'm thinking of certain American Indian tribes who
16 got what they had long sought for in retributions where
17 it was not thought possible.

18 A class action suit that came about a few years
19 ago in San Francisco, according to the San Francisco
20 Chronicle, interests me particularly because I felt I was
21 victimized by the long wait for collection to clear.

22 A, quote, a little old lady, unquote, brought a
23 few other little old ladies and men together in a class
24 action suit against Crocker Bank, and some of you
25 probably remember the result.

1 They were successful in the suit, reversed the
2 banking practice that had set a fifteen day hold on out
3 of town checks. Suddenly it became ten days and then
4 three days for local checks. The result has been very
5 very encouraging to people with limited funds like
6 myself.

7 I mention that simply because so many people who
8 have been in for such a long time feel there isn't as
9 much hope as they'd like for changes of practice.

10 Lastly, I was in Omaha doing some consulting work
11 the year of the senses, 1980, and I was doing some
12 historic building research and I saw a beautiful historic
13 building, five story office building, reconstituted into
14 a very lively law firm of some three hundred lawyers and
15 their backup to find out they were in real estate law
16 basically but particularly in environmental impact law,
17 and I saw a plaque that indicated they were formed
18 because the prominent Senator Ruska of Nebraska authored
19 the environmental report requirements about 1970, and he
20 had a couple of constituents who had young sons ready to
21 go in law practice and he suggested that they study this
22 because nobody else knew anything about it.

23 Well, they became very successful because nobody
24 else knew how to comply with environmental impact studies
25 and everything came to a halt until they had some action

1 on.

2 The firm now is in five cities. The nearest one
3 to us is Denver. They have a water division. They may
4 be representing some interests on one side or the other,
5 but a good resource, I think.

6 And, incidentally, after Ruska retired he became a
7 consultant to the firm.

8 So I appreciate being able to talk as a new person
9 and I think we'll sometimes realize that drowning the
10 victims water policy with proliferation of painfully
11 detailed minutia should not cloud some basic facts.

12 Thank you.

13 MR. RAGAN: Thank you very much.

14 Joy Wilson. Then the last speaker that I have, at
15 least on a card right now, is Buck Elton.

16 MS. WILSON: My name is Joy Wilson.

17 I want to say to Mr. Cohen that I appreciate that
18 he's -- he does not want to be taken in by details, and I
19 want to say that that goes along with my statement.

20 I disapprove of this EIR. I think it's willfully
21 inadequate.

22 I agree with what everyone has said so far, that
23 points out that, the serious pitfalls in it.

24 I think it's sad that many people who have read
25 the agreement and followed the public meetings are not

1 here tonight because we've been discouraged about the
2 lack of receptivity on the part of the county officials.

3 I'm here tonight, but I am discouraged, but I'm
4 still hoping that the people in Owens Valley can get
5 together and see to it that some real protection is given
6 to our valley before it's too late.

7 MR. RAGAN: Thank you very much.

8 Buck Elton.

9 MR. ELTON, SR.: I'm just a private citizen.

10 I have about three things that I want to touch on
11 and I want to thank those that came before me because I
12 thought they were most articulate and most effective in
13 their presentation.

14 I'm concerned primarily of what Los Angelans do to
15 mitigate Owens Valley.

16 They have two hundred and fifty thousand acre
17 feet, from your report, of reclamation water that I
18 believe they're probably reclaiming about thirty-two
19 thousand at this particular time.

20 Most of that water can be reclaimed. It can be
21 used to irrigate their freeways, their parks, their golf
22 courses and all the other public entities down there, and
23 probably if they use that reclamation water they wouldn't
24 even need any water from Inyo County.

25 You're talking about nine thousand feet coming

1 from us. I'm trying to get them to save two hundred and
2 fifty thousand going down the Santa Monica River to the
3 Santa Monica Bay.

4 I notice that the Metropolitan Water District
5 announced yesterday that there is going to be water
6 rations starting February 1st.

7 This is -- that's going to impact a lot of people,
8 a lot of jobs, a lot of things. It's going to impact us
9 up here just as strongly, but that's the first step that
10 anybody in the City of Los Angeles has ever taken to
11 mitigate anything to do about Owens -- the Owens Valley.

12 Mayor Bradley hasn't done it, the water
13 commission, DWP, hasn't done it. Nobody done it.

14 Metropolitan Water District told DWP you're going
15 to be rationing on February the 1st.

16 I think it's high time.

17 The last thing I'd like to touch on is I think the
18 Owens Valley dust, the PM tin, the particle dust that
19 affects all of us, and affects all of us, is the most
20 devastating environmental disaster in the State of
21 California, or probably in the Western United States.

22 It hadn't been treated fairly or as seriously as
23 it should be.

24 You've got to give us a time and a place and a
25 methodology that this is going to be corrected.

1 Thank you very much.

2 MR. RAGAN: Thank you very much.

3 MR. RAGAN: Now I just received one more high sign
4 from someone that wants to speak, so I will call upon him
5 first.

6 Yes, sir, state your name again briefly.

7 MR. MILLER: My name is Vernon Miller.

8 I didn't fill out one of those slips. I don't
9 know where they disappeared, but you did give Mr. Davis a
10 copy of what I wanted to read.

11 I am Tribal Chairman of the Fort Independence
12 Indian Reservation and have been for many many years.

13 December 12th, 1990, I, Vernon J. Miller, Tribal
14 Chairman of the Fort Independence Reservation, a
15 federally recognized tribal government, state the
16 following:

17

17 We protest this EIR as it relates to the City of
18 Los Angeles Department of Water and Power and the County
19 of Inyo as these two entities have no jurisdiction over
20 entities such as our reservation.

21 The damage to air and water quality is affecting
22 and damaging to our health and well-being.

23 We are subject to these conditions by increased
24 pumping of ground water extraction and the dying
25 vegetation and blowing dust.

1 Our reservation is located in the heart of the
2 Owens Valley two miles north of the Town of Independence,
3 California.

4 Damage has occurred on and in the vicinity of the
5 reservation, lowering of domestic water wells and pumps
6 on the reservation, increased pumping bills.

7 Lowering of pumps twice in the past year have been
8 a financial burden to the tribe.

9 The new mitigation wells in the agreement between
10 the City of Los Angeles and the County of Inyo are very
11 damaging to the requirements of CEQA and other agencies
12 for the protection of the environment be adhered to, or
13 are they being allowed to be ignored?

14 The complete disregard for federally recognized
15 reservation, their right to participate or have a voice
16 in this matter, the EIR report on Indian lands are not
17 true.

18 The tribes do have water rights. See Deeds of
19 Records, U.S. Government of the City of Los Angeles.

20 Water rights for Indians under Winters Doctrine
21 are missing or not addressed.

22 Water quantification in terms of surface and
23 ground water, again, not addressed.

24 For the Independence water rights an Oak Creek
25 decree in 1923, not identified.

1 I have given some records of fact to Paul Avila at
2 the December 4th, 1980, meeting of the Inyo County Board
3 of Supervisors in Independence.

4 Mr. John Davis of the firm EIP and Associates was
5 called sometime in the past year and informed by myself
6 of the situation with Tribal Governments, especially
7 under Title 25, Code of Federal Regulations.

8 There are only three or four paragraphs in the
9 report relating to Indians and Indian water rights.

10 If this statement is incorrect, please advise me
11 so there can be no misunderstanding of our protest to
12 this complex situation.

13 Sincerely, myself.

14 Thank you.

15 MR. RAGAN: Thank you very much.

16 Anyone else would like to comments that didn't
17 fill out a card?

18 If you -- I just ask you to come to the microphone
19 because, because of the court reporter.

20 MS. GILCREST: My name is Betty Gilcrest. I live
21 here in Lone Pine. I'm not representing anyone in
22 particular, but I was concerned about, among other
23 things, Water Resources Chapter on page nine eighty-four,
24 Water Quality from 1970 to 1990.

25 It says, and I quote: (Reading)

1 Surface water quality was changed
2 slightly between 1970 and 1990 as compared
3 to pre-project conditions with no
4 significant impacts.

5 Water quality in the Owens River
6 was monitored by the USGS National Stream
7 Quality accounting network 1974 to 1985.

8 Water samples were analyzed for
9 both fecal chloroform and fecal
10 streptococci bacteria.

11 Streptococci formed bacteria ranged
12 from one to fifty colonies per one hundred
13 ml of water, whereas fecal streptococci
14 bacteria range from one to greater than
15 one thousand colonies per ml.

16 The fecal streptococci bacteria is
17 generally an indicator of livestock
18 activities rather than human activities
19 and no standards exist for streptococci.

20 The numbers of colonies of both
21 chloroform and streptococci bacteria
22 increase steadily during the periods of
23 measurement.

24 This is quoted from the EIR.

25 Then it says: (Reading)

18

1 Mitigation measures: None required.

2 Water quality agreement under the provisions of
3 the agreement it is not expected that there will be any
4 changes in surface or ground water quality, and yet
5 they're saying that these bacteria are increasing.

6 On what data is this conclusion based and are
7 public health agencies involved in this study?

8 If not, should they be?

9 Thank you.

10 MR. RAGAN: Question, turning it around, that you
11 definitely think they should be?

12 MS. GILCREST: Yes.

13 MR. RAGAN: Thank you.

14 Actually -- yes, sir.

15 A VOICE: My name is Kegan Kivet (phonetic).

16 It's not to do with the valley floor, it's to do
17 with the White Mountains.

18 MR. RAGAN: Could you come a little closer?

19 MR. KIVET: It's not to do with the valley floor,
20 it's to do with White Mountains.

19

21 I came in the valley in '56 -- 1970.

22 There's quite a few small springs in the White
23 Mountains. Since that period of time, well, you might
24 get six or seven now at the 1970 period.

25 There is something like, oh, about fifty and

1 that's a big difference between now and then for twenty
2 years, and I believe the ground pumping that has happened
3 within the valley floor has alleviated the pressure
4 that's allowing the seeps to dry up, also, your
5 vegetation and wildlife.

6 MR. RAGAN: So you want them to examine the White
7 Mountains as well?

8 MR. KIVET: Yeah. Also look into that.

9 MR. RAGAN: Thank you very much.
10 Other comments?

11 Yes. If you'll come up to the microphone here.

12 MR. WILSON: Earl Wilson from Lone Pine, Eastern
13 Sierra Environmental and Water Conservation Association.

14 I'd like to address the problem of safety with the
15 addition of the second barrel to the aqueduct.

16 As most people know here, there is a major fault
17 going right along the edge of the aqueduct and it does
18 follow it for several miles.

19 I see nothing in the EIR about emergency
20 preparedness should there be an earthquake or, God
21 forbid, a flood that might cause problems in the river
22 causing a great fish kill or, quote, damage to the
23 environment.

24 We'd like to see that addressed.

25 We also have a very severe lack of feeling for

1 specie homosapian which may also become an endangered
2 species, and we'd also like to see that addressed.

3 In particular, there should be some, something
4 done about DWP in their hiring practices of local people.

5 We'd like to see some of that taken care of, too.

6 MR. RAGAN: Thank you very much.

7 Anyone else?

8 Yes, ma'am.

9 MS. DUNCAN: My name's Jennifer Duncan. I'm just
10 a concerned citizen.

11 My only oral comments at this time is to request
12 an extension, pretty much echoing what Michael Prather
13 has mentioned. It's the holiday season, it's a very busy
14 time, there are a lot of other EIR's, it's cold and flu
15 season. We would like to see at least a minimum of
16 thirty days extension.

17 Thank you.

18 MR. RAGAN: Thank you very much.

19 Other comments?

20 I might, just following up, I think one thing that
21 Mr. Cohen said, and I think it's a little hard, this
22 being the last of the four meetings in the Owens Valley
23 and then one tomorrow night in Los Angeles, to get,
24 unless you have been to all four meetings, to get some
25 prospective of what other people have said and how many

1 have spoken, and I just might say a couple of words about
2 that.

3 As you might except, with the largest meeting
4 being there in Bishop, and there was about a hundred and
5 twenty-five people, and I think we had maybe a hundred
6 twenty or hundred and twenty-five people, and there were
7 fewer people in Big Pine and Independence, but one of the
8 things that I've been most impressed by, and you
9 certainly reinforced that tonight, is really how much you
10 have focused directly on the EIR and what you consider to
11 be its inadequacies and deficiencies.

12 I conduct a lot of public meetings, but I don't
13 think I've seen people more focused in terms of giving
14 the consultant in this case just a hell of a lot of
15 information that they're going to have to examine very
16 closely, and so I really commend you, as well as the
17 other people, and I just want you to know that just even
18 with maybe nine or ten comments tonight there have been
19 just a whale of a lot of oral comments, and certainly the
20 requests, the persistent requests for extensions on the
21 written comments period which was also heard at every
22 public meeting, suggest that EIP is going to probably get
23 a few letters, to say the least, so I thank you very
24 much.

25 Yes.

1 MS. SINCLAIR: I would like to make one comment
2 I've been thinking about.

3 MR. RAGAN: Oh, I shouldn't have said anything.

4 MS. SINCLAIR: My name is Mary Sinclair. I'm a
5 citizen of Lone Pine.

6 I happen to work at the Lone Pine Chamber of
7 Commerce. I want to make it clear I am not speaking for
8 my board at this time.

21

9 I would like to see the projects that DWP is
10 giving us in the area of parks, recreation, that type of
11 thing, I would like to see the programs and the funding
12 expanded.

13 I agree with most of what everybody said,
14 especially Michael Prather on the Lower Owens River
15 project, but I do think that DWP, for what they are
16 taking from this valley, that they owe us a lot more in
17 dollars and cents and in expanded programs.

18 MR. RAGAN: Thank you very much.

19 That seems like a good note upon which to end it,
20 so I thank you very much for coming this evening.

21 (End of proceedings).
22
23
24
25



**RESPONSES TO COMMENTS
LETTER E4**

RESPONSE E4-1

This comment raises an assertion of legal requirements. It does not itself, raise an environmental issue related to the content of the Draft EIR. The comment is noted; however, the applicability of some legal issues to various activities is an ongoing legal question which may be tested in a number of arenas other than this EIR.

RESPONSE E4-2

Please refer to response to master comment PD-11 for a discussion of Inyo County's financial participation under the Agreement.

RESPONSE E4-3

Please refer to response to master comment PD-7 for a discussion of monitoring provisions under the Green Book and see response to master comment WL-6.

RESPONSE E4-4

This comment expresses a personal opinion unrelated to the content of the Draft EIR. Please see response to master comment C11-41 in Letter C-11.

RESPONSE E4-5

Please refer to response to master comment VE-6 regarding rare and endangered plant species.

RESPONSE E4-6

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE E4-7

Please see response to comment E4-6 above.

RESPONSE E4-8

Please refer to response to master comment MT-4 regarding discontinuation of mitigation.

RESPONSE E4-9

The Lower Owens River Project is acceptable mitigation. Please refer to response to master comment MT-3 for allowable mitigation under CEQA; and MT-6 for a description of the goals and elements of the Lower Owens River Project. As allowed under CEQA, upon finalization of the project description, a separate environmental review will be conducted.

RESPONSE E4-10

Comment noted.

RESPONSE E4-11

Please refer to response to master comment PD-15 for a discussion of release of Los Angeles-owned lands and potential effects on wetlands, and see response C21-11 in Letter C-21.

RESPONSE E4-12

Please see response C11-34 in Letter C-11.

RESPONSE E4-13

Springs and seeps would be protected under the Agreement. Please refer to responses to master comments PD-5 and WA-4.

RESPONSE E4-14

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE E4-15

Please see the Agreement, page B-36, line 10 for information on this issue.

RESPONSE E4-16

Please refer to responses to master comments PD-3, MT-5 and AQ-1 for a discussion of Owens Dry Lake, and air quality impacts.

RESPONSE E4-17

Please refer to responses to master comments PD-8, PD-9, PD-10 for a detailed discussion of the relationship between the proposed project, Draft EIR and Indian tribes.

RESPONSE E4-18

Water quality within the Owens Valley is generally excellent, and no substantial threat to water quality is anticipated. Livestock grazing does affect water quality, but conventional water treatment processes produce water of sufficient quality to protect public health.

RESPONSE E4-19

The White Mountains springs cited in this comment are outside the study area. There is no known evidence that the project has affected these springs.

RESPONSE E4-20

This is outside the scope of the project. Emergency plans have been developed by LADWP.

RESPONSE E4-21

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

Letter E5

December 13, 1990, Los Angeles Department of Water and Power, Los Angeles, California



LETTER E-5

DEPARTMENT OF WATER AND POWER MEETING

REGARDING GROUNDWATER PUMPING

RECEIVED

FEB 1 1991

EIP ASSOCIATES
SAN FRANCISCO, CA

111 North Hope Street
Los Angeles, California

Thursday, December 13, 1990

7:00 P.M.

CERTIFIED COPY

Reported by:

Gordon D. Smith

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Larry McCone	21
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1 LOS ANGELES, CALIFORNIA; THURSDAY, DECEMBER 13, 1990; 7:00

2 * * *

3
4 MR. RAGAN: Good Evening. I welcome you to the fifth
5 in a series of meetings that EIP, the consultant for the
6 Department of Water and Power and the water company are
7 conducting on the draft environmental impact report on the
8 Inyo County and DWP agreement with respect to groundwater
9 pumping. What we're going to do this evening in terms of
10 your comments is that first John Davis of EIP Associates is
11 going to give you a brief overview of the thick report,
12 which some of you have, and then we'll open it to up your
13 comments.

14 My name is Jim Ragan, and I am facilitating
15 this meeting as I have most of the meetings. The reason
16 that I am here as an independent facilitator to EIP is so
17 that its representatives, particularly John Davis this
18 evening, can listen to your comments rather than having to
19 conduct the meeting as well. I hope I will conduct this
20 meeting as objectively as possible because I certainly have
21 no stake in this particular project one way or the other,
22 and that's why I'm here. If you catch me at any particular
23 time being biased that you see, I'm the person that you
24 should shout at.

25 We are recording this meeting verbatim in two

1 ways. One, we have a court reporter, as you can see, and
2 the DWP has somebody in a back room which all of these
3 microphones are wired, so that we have belts and suspenders.
4 Since EIP got here a little late, we normally would have
5 sign-up cards. Normally, I would have the cards and then I
6 would call people in the order that I receive the cards, but
7 since I can't do that and there aren't that many of us here
8 what I will ask is that if you raise your hand and come to
9 this microphone over here so that we get the recorded
10 comments, and we'll do it that way.

11 I don't really intend to impose any time limit
12 on the comments. There was some notice of maybe limiting it
13 to five minutes, and I think that they are -- I don't want
14 it necessarily to filibuster for a couple of hours, but I
15 think the important thing is you do get your opportunity to
16 express yourself fully so that EIP has the full opportunity
17 of your points of view. I also stress that everything you
18 know having participated in these processes, EIP welcomes
19 and encourages your written comments and both the written
20 comments and the oral comments you make tonight will become
21 part of the permanent record.

22 I might also just mention before I introduce
23 John to just give you some idea of what happened up in the
24 Owens Valley. There were four meetings conducted in Big
25 Pine and Lone Pine and Bishop over the last two weeks. All

1 together maybe 200 people, of which maybe 40 approximately
2 actually spoke. I think they were very productive meetings.
3 Everyone focused very specifically on the draft EIR that was
4 cleared and everybody who spoke had read it, and they had a
5 lot of concerns. But certainly from the EIP standpoint, I'm
6 sure John would echo this, they were very productive
7 meetings in producing an outstanding final EIR.

8 With that, I'd like to introduce you to
9 John Davis of EIP Associates.

10 MR. DAVIS: Good evening. I served as the project
11 director on the preparation of the EIR that many of you have
12 reviewed. There was a relatively large team of technical
13 experts involved in its preparation, so tonight my purpose
14 is to present it to you and hear your comments. We're not
15 in a position to respond to the comments on the spot. We
16 will need to consider them and give you a considered
17 response when the final EIR is prepared.

18 The purpose of this meeting and the others that
19 preceded it in the Owens Valley is to continue the
20 environmental review of the Owens Valley groundwater pumping
21 project. The environmental review is required under the
22 terms of provisions of the California Environmental Quality
23 Act. As most of you know, a sequel was passed in 1970, and
24 its purpose was to make sure that environmental factors were
25 brought before policy makers before decisions were made on

1 large or small project that might adversely affect the
2 environment.

3 The process, the environmental process on this
4 project, has been going on for some time. It began about 18
5 months ago with the circulation of notice of preparation and
6 the holding of a number of scoping meetings in a couple of
7 towns within the Owens Valley. The purpose of those
8 meetings was to solicit comments from the public and
9 agencies on what issues ought to be addressed in the
10 environmental impact report. The last year or so has been
11 devoted to preparing the document itself. It was prepared
12 by a team of technical specialists from our firm and also
13 individuals from DWP and Inyo County.

14 The next step in the process is for us to
15 receive your comments, the comments that were received at
16 other meetings, and any written comments that individuals or
17 agencies may choose to submit to us. We have to prepare
18 responses to all those comments, and then the final EIR is
19 represented by the draft that you've already seen, perhaps
20 modified to take account of the some of the information we
21 may gather in the next few months, all of the comment
22 letters that are submitted to us, the transcript from the
23 public meetings and our responses to each of the comments.
24 So it would be this massive information will go before
25 policymakers before they make a decision on the project in

1 essence whether to approve the agreement on the groundwater
2 master plan between Inyo County and Los Angeles.

3 I'd like to say a few things about the contents
4 of the report, highlight one or two of the them for you.
5 The EIR is unconventional as you will probably note when you
6 read it. Most environmental impact reports deal only with
7 the proposed project and what its effects might be in the
8 future. In this case we are dealing with a proposed project
9 that it was two components: The effects of all water
10 gathering activities between 1970 and 1990 in the Owens
11 Valley designed to fill the second aqueduct. And then again
12 those same activities in the future after 1990 assuming
13 implementation of the agreement on groundwater management or
14 the groundwater master plan which would control or limit the
15 way water gathering occurred.

16 Obviously that's a little unusual in that
17 you're not usually preparing an EIR on something that is, at
18 least in part, on something that's already occurred. It
19 adds to the complexity of preparing the report and I'm sure
20 of reviewing it too.

21 The actions taken between 1970 and 1990
22 included increased groundwater pumping, increased surface
23 water diversion, reduction in agricultural irrigation and
24 initiation of a number of projects called environmental
25 enhancement mitigation projects which were designed to

1 reduce environmental effects of water gathering activities.

2 Future activities, the other part of the
3 proposed project, would be quite similar to those between
4 1970 and 1990, but now management would be controlled by the
5 limitations imposed in the agreement. It would be some
6 additional new facilities also -- 15 new wells and some new
7 facilities for groundwater recharge.

8 A section of the report considers alternatives,
9 and the way the alternatives are arrayed is as eight
10 different options for managing water within the Owens
11 Valley. One end of the spectrum is the no-action
12 alternative and this alternative would represent a return to
13 the conditions or the methods of management of water in the
14 central prior to 1970. The other end of the spectrum is an
15 alternative where water would be managed in the valley to
16 essentially fill the second aqueduct. The proposed project,
17 the one involved in the agreement, falls within that range
18 toward the end of the new project.

19 Though the way the alternatives are presented
20 is as alternatives for the Owens Valley water management,
21 they have implications elsewhere. The reason for this is
22 any alternative that involved less water from the Owens
23 Valley than the proposed project would mean or the
24 implications of it would mean that Los Angeles would have to
25 look for alternative sources of water. A number are

1 discussed in the report and they include further expansion
2 of the existing water conservation programs, further
3 expansion of waste water reclamation programs, and probably
4 the most feasible -- purchase of additional water from the
5 Metropolitan Water District of Southern California.

6 Those are the main points of the project
7 description and the alternatives. I'd like to highlight for
8 you some of the findings with respect to impacts. Again we
9 had to look at the two periods separately, and first we
10 looked at the impacts for the period 1970 to 1990. One of
11 the charges in the EIR is to identify which impacts are
12 judged to be significant and may require mitigation measures
13 of one kind or another.

14 There were three environmental elements that we
15 felt were significantly impacted by water gathering
16 practices between 1970 and 1990. These were vegetation,
17 wildlife, and air quality. With respect to wildlife and air
18 quality, we concluded that the mitigation measures or
19 environmental enhancement projects already undertaken were
20 mitigating those impacts to a level of insignificance. With
21 respect to vegetation, we concluded that that was not the
22 case and additional mitigation was necessary.

23 The report identifies a number of areas where
24 further mitigation is needed. Many of them include former
25 agricultural lands which have lost their vegetative cover,

1 and as a result are a source of a certain amount of
2 wind-blown dust. These areas are mapped in the EIR and have
3 been targeted for re-vegetation. As far as other vegetative
4 loss within the Valley, the approach to mitigation has two
5 elements. Part of it involves on-site mitigation. These
6 are cases where there's been a loss of vegetation at some
7 place in the Valley actions can be taken to lessen or
8 mitigate the loss in the immediate vicinity of the impacted
9 area.

10 In some other cases this is not possible for a
11 variety of reasons. Consequently, compensatory mitigation
12 has been involved as well. The primary compensating
13 mitigation is the lower Owens River project which would
14 involve the restoration of a 50 mile section of the lower
15 Owens River. This would, in essence, mitigate some of those
16 otherwise unmitigable impacts at various locations in the
17 Valley.

18 The second part of the findings dealt with the
19 period from 1990 onward, and here we concluded there would
20 be no further significant adverse environmental impacts.
21 The reason for this is that the way the agreement is set up
22 is to an extent or in principle it's self mitigating in that
23 it includes provisions that would limit pumping or allow
24 turn off of wells under conditions where it was clear from a
25 number of proscribed measurements that harm to vegetation

1 was occurring. So because it is self mitigating, we came to
2 the conclusion that unlike the period 1970 to 1990 there
3 would be no significant adverse environmental impacts.

4 I think that skates over the surface of much of
5 that report and highlights some of the critical points, and
6 I'd like to pass the microphone back to Jim and the rest of
7 the meeting to you.

8 MR. RAGAN: Thank you, John. As I said, I'll just ask
9 you to raise your hand and then come up to this microphone.
10 I'm not sure that that first person coming to the
11 microphone -- I'm not sure if it's on, but I do definitely
12 ask you to come to the microphone so that we make sure that
13 we get all of your comments down verbatim as part of the
14 record. I also ask when you come up if you will state your
15 name and if you are representing an organization and
16 institution that you'd like to identify, I'd like you to
17 state that as well for the record.

18 MR. CLUFF: My name is John Cluff, and I am vice
19 president for architecture and engineering for Forest Lawn
20 Memorial Parks. We have a cemetery that is located within
21 the City of Los Angeles. It is served by the Department of
22 Water and Power. We have real concerns about there
23 continuing to be a reliable source of water. Obviously,
24 there needs to be a balance between the environment and
25 agriculture and urban areas, and we feel that the agreement

1 between in Inyo County and the Department does that. It
2 creates a balance.

3 There's been a lot of work, a lot of effort, a
4 lot of years that have gone into this agreement, and it
5 seems as though it sounds like the best answer in our
6 estimation. Water, of course, is pretty much a lifeblood
7 for us because we have a very strong obligation to the
8 literally thousands of people who own property at our parks,
9 and we do feel the obligation to keep them in as good as
10 shape as we possibly can. And obviously this does take
11 water. Currently we are using what is considered potable
12 water for irrigation.

13 Conservation has been mentioned. Conservation
14 is very definitely an important part of the future. We've
15 gone very heavily into it. We have hired an irrigation
16 engineer who we have working with us to create conservation
17 efforts and fine tune our conservation methods.

18 We're also using weather station data. The
19 CIMIS program which is the California Irrigation Management
20 Information System -- I've got it right -- which is run by
21 the Department of Water Resources. It's automated weather
22 stations that can be accessed through a computer. You can
23 get hourly weather data. We're utilizing this to help us in
24 our scheduling of our irrigation.

25 Reclaimed water is another effort that needs to

1 be put forward as best as possible. We're currently
2 negotiating with the Department of Water and Power for
3 reclaimed water. These things certainly need to be
4 emphasized. They are and I think they will be. But even
5 with these efforts, the need for a good substantial and firm
6 and reliable source of water to Southern California and the
7 city of Los Angeles is very essential. Essential to the
8 economy and essential to many people's jobs and livelihoods.
9 Thank you.

10 MR. RAGAN: Thank you very much.

11 MS. TOOMAYMANI: My name is Emma Toomaymani, and I'm
12 with People of Color Homeless Coalition. The question I
13 have is since there have been scientific studies done, and
14 it has been proven that water can be recycled, that fresh
15 water used to dispose of human wastes can be substituted by
16 other methods. Have your study's participants included any
17 of these alternatives for water conservation?

18 MR. RAGAN: John has said that, unless he wants to
19 respond, that he's looking more for comments more than
20 analysis. But I assume your comment is more making sure
21 that all of the possible ways that we can save water in
22 Los Angeles are examined as part of the EIR. Would that be
23 a correct summary?

24 MS. TOOMAYMANI: Yes.

25 MR. RAGAN: Thank you. If some of you also might want

1 to comment, you might also gravitate to the microphone.

2 MR. BECKER: My name is George Becker. I'm a
3 life-long resident of the City of Los Angeles. I'm retired
4 from the Department of Water and Power. I worked for the
5 power side. During that time of work I was associated with
6 one of the city attorneys named Omar Red Lloyd, and if I can
7 quote him as hearsay since this is not a court of law, he
8 was involved in the taxing of what was then department
9 facilities in the Owens Valley where the supervisors in
10 those counties, Owens and Lone Oak, were trying to tax
11 certain unused facilities.

12 And in part of his investigation he said that
13 when the Department of water and Power which was then a
14 small organization bought the property in Owens Valley, that
15 he determined from his investigation that it was not a rape
16 of a pristine paradise which the few commercial people in
17 Owens Valley today for their own selfish financial gain
18 claimed it was.

19 And if I can mention a picture that was at the
20 exhibition there by the cowboy actor Gene Autry. He had a
21 traveling exhibit there of some paintings about a year and a
22 half ago, and I noticed one by Edwin Deakin, who was born in
23 1838 and died in 1923. And this large illustration was
24 titled a Mountain Encampment in Owens Valley. And what it
25 illustrated was a camp, a small camp of Indians on a bluff

1 overlooking Owens Valley, and it was dated 1884.

2 So if that painting is accurate in any extent,
3 it showed Owens Valley to be a somewhat dusty, scrubby
4 growth area as you look down from this Indian encampment.
5 So in my opinion, for a few selfish commercial money
6 grabbers in Owens Valley and the area want to deprive us, a
7 large area of millions of people, of life sustaining water
8 just so they can return or cause Owens Valley to become the
9 so-called paradise that they fabricated in their minds. I
10 think it's a travesty of justice for we who live here in the
11 city of Los Angeles and depend on that as a major source of
12 our potable water.

13 I agree conservation is necessary. The world
14 is suffering from a water shortage problem. But for us to
15 suddenly give up and become the desert we once were just so
16 they can have their nice looking growth in Owens Valley, I
17 don't think that is reasonable.

18 When I was working I worked with men who still
19 to this day bid jobs in Owens Valley because they think it's
20 better than Los Angeles. So apparently the newspaper
21 articles that claim that Owens Valley is going down the
22 tubes does not seem to make these people too concerned. So
23 I'm hoping that we won't do something for us here that will
24 degrade our lifestyle so that a few people up there can have
25 some shade trees to enjoy their fishing and picnicking

1 under.

2 MR. RAGAN: Thank you. I just sort of in fairness to
3 the last in the Owens Valley that the words "money grubbing"
4 and "selfish" were also applied by some people in Owens
5 Valley to people living here in Los Angeles, so the words
6 are going both ways.

7 MS. BRADSHAW: Good evening. My name is Doris
8 Bradshaw. I reside at 19044 Santa Rita in Tarzana in the
9 San Fernando Valley, and I'll speak this evening for a
10 public interest called Fans of the Basin and these are
11 people throughout the Los Angeles area who come to the
12 Sepulveda flood basin to use the farm, produce, recreation
13 activity areas designated as such by the Army Corps
14 document.

15 I'll try to keep my focus in that area, but I
16 felt I needed to come because of the concerns of the area
17 the recreation area is supported by prime farm land in the
18 Sepulveda Basin which in turn is adjacent to riparian
19 wetland vegetation. The Los Angeles river running through
20 this area has never been paved. It's still natural, and
21 there are four natural earth bottom subsidiary streams
22 feeding into the L.A. river. All of these contain wet what
23 we call riparian vegetation, and I wanted to bring in some
24 concerns that perhaps have not been touched on.

25 I really have to say that I feel swamped by

1 environmental documents right now, so I didn't get to the
2 library to look at this, but I was at a meeting last night
3 and I couldn't study the other one. So briefly I'll touch
4 on growth issues because there seems to be confusion because
5 water is only one element in growth in Los Angeles. And
6 I've chosen to get involved in the sewer growth as an
7 individual because there's a sewer plant that influences our
8 recreation activities. And we have trash and growth
9 problems. We have air quality and growth problems, and
10 therefore I'm backing off on the projection right now.

11 In this one document released by the City, they
12 use Scaggs projections based on 1979 data, and I went last
13 night and the Department of Water of Power is using Scaggs
14 based on 1989 data. That's all I'm saying about growth. I
15 want to bring up issues now that I think relate to the
16 logical drain off of water anywhere as a possible health
17 problem.

18 Sepulveda basin has a lot of water right now
19 from mountain site sources and the artesian wells are
20 continuing to put water in there to provide for the birds
21 that have always been coming there. At the same time
22 there's an encephalitis problem there. From what I've read
23 in 1984 encephalitis appeared throughout Southern
24 California. It's not just in the Sepulveda Basin.

25 In the area where I'm focusing on, although

1 there are other wetlands in the west San Fernando Valley
2 again supplied by hillside water sources, there is no
3 encephalitis. It's just one mosquito that carries it. Why
4 it's only in the Sepulveda basin I don't know. I have a
5 great concern because in all the environmental work there's
6 one issue that's being addressed. What happens with the
7 connection between water or the removal of the water and the
8 vegetation and the encephalitis? So I just put that forth
9 as a concern.

10 The other concern is the subsidence of the
11 earth. It's coming out in the newspapers now that as we
12 remove ground water the earth does subside. It's a long
13 shot to talk about what's going to happen in Owens Valley
14 because I don't know what's going on under the ground, but I
15 see a tie in. My concerns there as an individual again were
16 on possible subsidence of the earth.

17 And this document indicated that the city is
18 proposing to put in this library without having a connection
19 to the sewer plant, and at the same time they were proposing
20 to use FEMA maps and flood maps from 1969, outdated
21 information. And therefore it may show that there's no
22 water there, but actually when they get there and start
23 constructing, until they get a sewer hook up, they're asking
24 for permission to remove all of that groundwater, divert it
25 to the L.A. River, and I believe that might be a part of a

1 feeding spot along the Ballona wetlands.

2 And lastly I'll leave with you the last update.
3 I've been following the Army Corps of Engineers' hydrology
4 study which is the whole Los Angeles river area, and it
5 should be coming out for public review very soon that should
6 give us a good idea what's going on under the ground as far
7 as water sources. It's such a complicated issue, we're all
8 going to have to work together.

9 MR. RAGAN: Thank you. Other comments.

10 MR. GRAHAM My name is Tom Graham. I'm responsible
11 for about 35 acres, two commercial buildings of 250,000
12 square feet housing about six tenants with 1,600 employees.
13 My first comment I'd like to make, since I understand this
14 is going to go someplace else, is that I am a little bit
15 upset and tired of hearing about how many people show up in
16 Lone Pine at one of these meetings. If I lived in Lone
17 Pine, this would be a heck of a night out to come to a
18 meeting like this.

19 So I don't want everything to be judged by the
20 City of Los Angeles as to how many people show up at these
21 meetings. There's three and a half million of us down here,
22 and you might say that this evening I'm talking for 1,600
23 employees. So if you multiply that, we can match the 25
24 people that come out of the farms to talk about their area.
25 It's not that I'm degrading their area. I know what it's

1 like all the way up beyond the lakes at Mammoth.

2 I know what they're looking for, and I know what
3 it is. But I think it's unfair that we come with
4 Mr. Mulholland and we build the aqueduct. It brings water
5 down here. We buy the land and improve the situation, and
6 now they want to change all the rules. They say you've got
7 too many people down there, we're not going to do it.

8 In the company that I work with we conserve
9 water. We cut back. We plant flowers that are drought
10 resistant, but when you have 1,600 people it's very
11 difficult to say you cannot flush the toilet and you can
12 only have one drink of water a day, and be sure to wipe off
13 the plates because we can only rinse them, we're not going
14 to be able to wash them. You're going to create a health
15 problem with these people.

16 We have an environment. We've got 1,600 people
17 that we're concerned with besides the families that are
18 connected with these 1,600 people. I think that we,
19 speaking of the Department of Water and Power being we, have
20 offered them a fair choice, and all they do is say you're
21 going to have to cut back. We're not going to give you the
22 water we promised you in the first place. And it's almost
23 to the point that you say this is our water. We paid for
24 it. We dug the holes for it to come down here.

25 We have to be mad at somebody. It might be God

1 because he hasn't made it rain often enough or made the snow
2 deep enough, but I don't think you can say that the City of
3 Los Angeles is not being judicious in their use of water. I
4 think that we need the water down here. I think that we
5 have treated the people fairly up there, and I think it's
6 unfair if this is not approved in the way it stands now.

-7 MR. RAGAN: Other speakers? There's still time.
8 There's probably some more cookies.

9 MR. MC CONE: My name is Larry McCone, and I'm a
10 resident of Los Angeles. Tonight I'm speaking on behalf of
11 Sierra Club Southern California Regional Conservation
12 Committee. Members in the club's six Southern California
13 counties number about 104,000. They reside in the area
14 north of the Mexican border north to Monterey on the west
15 and Owens Valley on the east. I guess I'm Mr. Becker's
16 opposite number.

17 I guess that the Chamber of Commerce up there
18 can speak for its beauty and its singular appeal, the
19 environmental values up in Owens Valley. But while
20 mid-summer bicycle treks caravan from this building up to
21 Mono Lake with little vials of water to deposit them in Mono
22 Lake, the Owens Valley was just a stop along the way. Most
23 of us upon hearing Owens Valley these days think of past
24 history or worse, history books they didn't even read.

25 The people of Owens Valley have had very little

1 to do with shaping their own development. The decisions
2 concerning growth in Owens Valley have been made here in
3 Los Angeles. People like Mr. Becker don't understand that
4 history, and leaving a disenfranchised population up in
5 Owens Valley to deal with the problems that we in
6 Los Angeles create smacks of irresponsibility.

7 I want to state right now on behalf of Sierra
8 Club members and behalf of our local chapter of the Sierra
9 Club up in Owens Valley that we do have compassion for the
10 decisions down here that impact the way people live up
11 there. It's also unfortunate for Inyo County residents that
12 this hearing in Los Angeles takes place during the same week
13 that the Metropolitan Water District considered adoption of
14 a regional urban water management plan and metropolitan
15 water district promulgated their own form of mandatory
16 rationing during the same week that the city Department of
17 Water and Power held hearings on its own urban water
18 management plan update.

19 The comment period also draws to a close on the
20 elephantine EIR/EIS for the City's waste water facilities
21 plan update. And I see from the poor lady back there that's
22 trying to wade through this paper, everybody's choking on
23 it, and I think it's probably going to require a little more
24 time for people down here to absorb all this. I'm going to
25 request that the January deadline for comment be extended

1 for 45 days to give people a chance to get through this
2 together with all the other issues that we have to deal with
3 in this urban area.

4 Specifically to the environmental impact report
5 itself, it's definitely a step in the right direction.

6 There are strengths in the report -- I don't mean to sound
7 entirely negative, but I'm going to keep my comments short,
8 and to do so I'm just going to point out a few things that
9 we perceive as weaknesses in this EIR.

10 This project began in 1970. It didn't begin in
11 '84 or '87. It began 20 years ago. And the EIR contains an
12 inadequate preproject description of the affected
13 environment. We believe that an accurate description is
14 required by SEQUA to enable an assessment of the impacts of
15 the project to decide on appropriate mitigation.

16 Now all the alternatives are going to have to
17 be considered and the findings of the EIR must consider
18 project alternatives including water conservation in
19 Los Angeles. The Angeles chapter of the Sierra Club has a
20 water committee, and its chair is here tonight to address
21 the water conservation aspects in a little bit more detail.

22 A couple of other comments on the drought
23 recovery policy. It's fine to talk about drought recovery,
24 but it appears to the Sierra Club that the policy must allow
25 pumping only after the soil moisture recovers to that

1 necessary to support the vegetation mapped during the
2 '84-'87 base line survey date.

3 The next point I'd make is that the agreement
4 grants Los Angeles unilateral authority to turn on a well
5 for the purpose of increasing the soil moisture and that is
6 inconsistent with the goals of the agreement. All decisions
7 to turn on wells which have been shut off due to soil
8 moisture deficits must be reached jointly by Inyo County and
9 Los Angeles.

10 The next point I'd make is that an upper limit
11 on pumping based on safe yield should be enforced until a
12 monitoring program with the ability to detect a specified
13 level of change is fully implemented. I'd refer on that
14 comment to B6 B7 of the EIR, and the green book page is 100
15 to 109.

16 The next point I'd make is that the few
17 remaining natural springs in the Owens River project must be
18 fully protected in their natural state. If flows decline at
19 any of the remaining springs due to pumping, the adjacent
20 wells must be shut off. The definition of "significant" and
21 "significant effect" on the environment must be explicitly
22 defined consistent with the goals of agreement. Any adverse
23 environmental impacts which are statistically measurable and
24 due to pumping should be defined as significant unless both
25 parties agree otherwise due to the limited extent,

1 permanence, or magnitude of the impact.

2 Another point is grazing. There is not an
3 adequate discussion of the cumulative impact of livestock
4 grazing which occurred from 1970 and to 1990 and those
5 expected in the future. Since a grazing management program
6 is offered to avoid future significant cumulative impacts,
7 that program must be fully specified and open to public
8 review as require by SEQUA.

9 Now, there is a question about whether or not
10 there would be an allowed conversion from native plants to
11 alfalfa management. This ties in with another broader
12 Sierra Club policy on agricultural management of the water
13 supply. Agriculture in California uses 85 percent of the
14 developed supply. That's in central California.
15 Agriculture faces an increasingly uncertain economic
16 picture.

17 Southern California cities face ever increasing
18 demands to a great degree through an absence of local
19 planning here. That's why our demand is as high as it is.
20 We're neither greedy nor are we wasteful, but we haven't
21 planned properly. Cities, however, can still afford to pay
22 for additional amounts of currently developed supply, and
23 cities have the votes to assure their needs will be met in
24 any event. I'll paraphrase a recent Natural Heritage
25 Institute report saying that the environment has an ancient

1 and justified claim to the water and a broad and relentless
2 constituency. The big picture in California water use in
3 the future include voluntary transfers and extensive
4 conservation in urban and agricultural sectors.

5 We city residents have probably seen the
6 advertisements by DWP on television which are intended to
7 instill fear in the viewer, convince the viewer that what we
8 need more than anything is additional supply. And to me
9 these visions of doom and apocalypse that are visited upon
10 us by the DWP are really intended to rather scare us into
11 believing that we need to take water from some place rather
12 than manage it here where we are best equipped to do so.

13 So I think that to reiterate the theme that I'd
14 like to leave you with is that we in Los Angeles have a
15 stake in what happens in Owens Valley. We own land in Owens
16 Valley. We own resources in Owens Valley. They are
17 worthwhile. You may not be a fisherman. You may not be a
18 hiker, but they are up there, and we have a responsibility
19 to those people and to that environment, and I don't think
20 that responsibility should be shirked. And I also think we
21 should be more sensitive to the people there and give them
22 back the franchise to manage their local resources.

23 MR. RAGAN: When you mention the inadequate
24 description of the preproject conditions, is that something
25 that you're intending to go into in more detail in your

1 written comments? And the same thing with the inadequate
2 discussion of grazing. I just wanted to make sure.
3 Anything that someone describes as inadequate, I think any
4 more guidance you can give of what is inadequate is helpful.
5 I assume that was a lead-in for you.

6 MR. CZAMANSKE: My name is David Czamański. I am
7 chair of the Water Resource Committee of the Angeles Chapter
8 which is the Chapter that covers the geographic area of
9 Los Angeles County and the surrounding area. I'd just like
10 to limit my comments to two or three areas in the EIR
11 related water conservation and water reclamation.

9
12 Regarding in chapter three of the descriptions
13 of existing programs by the City of Los Angeles, I think it
14 would be very helpful if there was more quantitative
15 description and evaluation as opposed to just listing the
16 various conservation programs available in the city. For
17 example, on page 3-7 I see a whole page full of programs
18 that are listed, and we have narrative discussion, but
19 there's very little evaluation of whether, in fact, these
20 programs have been effective in reducing water conservation.

21 The statistical data from the city indicates
22 over the summer there has been a 10 percent or slightly over
23 10 percent reduction in water consumption as compared to the
24 previous year, adjusted for climate and a few other factors.
25 That's not at all clear whether that's from conservation or

1 what else that might be from. Beyond that, going into the
2 section chapter six, the alternatives, it would be very
3 helpful if there was discussion of some more, what I will
4 call, more aggressive scenarios of water conservation and
5 water reclamation in particular. This seems to be, again,
6 an assumption "well, perhaps we could achieve 10 to
7 15 percent savings through water conservation."

8 Some communities of Arizona and parts of
9 California have achieved 20, 30 percent reductions in water
10 use. So I would like to suggest that you have maybe three
11 scenarios for water conservation and water reclamation. In
12 the case of water conservation, you have a low or minimal
13 conservation effort; secondly, a medium conservation effort;
14 and third, a very significant conservation effort. And just
15 to toss out some percentages you might attach to that, what
16 you might want to call low maybe 10 or 15 percent savings.
17 You might want to call medium 20 or 30 percent savings. Or
18 call very high savings somewhere in the area of 30 to 45
19 percent savings.

10
20 Likewise in the area of reclamation, the city
21 has an extremely modest program of water reclamation at the
22 moment, and I would like to see discussion of more
23 aggressive water reclamation programs. In fact, I don't
24 know just exactly how, which week or which month, you got
25 your data on water reclamation, but various members of the

1 DWP commission have indicated that that factor should be
2 increased considerably, and I don't take any formal action,
3 but the city of Los Angeles is quite supportive of that
4 alternative.

5 I notice, just to take an example of particular
6 programs in the water conservation area, discussion on
7 6-2425 of the water audit program indicates that several
8 cities including Pasadena, San Jose, and East Bay Municipal
9 Utility District have continued to offer an audit program,
10 and then it says Los Angeles implemented a program of this
11 kind for several years but discontinued it due to lack of
12 interest by customers. The program has been reactivated in
13 part in response to the emergency.

14 One of the problems with the Department of
15 Water and Power in the city of Los Angeles is they really
16 have not taken water conservation seriously as an ongoing
17 program. Instead, they waited until drought conditions
18 arise, and then they try to put together a crash program.
19 And then they have excuses -- we can't put the
20 administrative mechanisms in force.

21 As most of the people in this audience know,
22 the general manager, Mr. Nichols, who was here previously,
23 did not support the Mayor's program put forward in April of
24 this year for mandatory water rationing and rather than bite
25 the bullet and work it out and figure out some way to come

1 forward with water conservation. Instead he took the easy
2 way out and resigned the day before it came up in the City
3 Council.

4 So we do have new commissioners on the Water
5 and Power Commission. We certainly hope they will be more
6 aggressive in pursuing such issues as water conservation and
7 water reclamation than has been the case in the past, and I
8 think your document ought to reflect those possibilities in
9 a more aggressive way than they do at the present time.

10 MR. RAGAN: Thank you very much for coming.

11 (The meeting was concluded.)
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1 STATE OF CALIFORNIA)
2 COUNTY OF LOS ANGELES) ss.
3)

4 REPORTER'S CERTIFICATE

5
6 I, Gordon D. Smith, the undersigned official reporter,
7 do hereby certify that the foregoing pages No. 1 through 29,
8 inclusive, do constitute a true and correct transcript of
9 the proceedings held on December 13, 1990

10
11 Dated this 14th day of January, 1990.

12
13 
14 _____
15 OFFICIAL REPORTER



**RESPONSES TO COMMENTS
LETTER E5**

RESPONSE E5-1

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

RESPONSE E5-2

Please refer to responses to master comments PD-1, regarding project operation since 1970, and EA-1 regarding pre-project conditions.

RESPONSE E5-3

Please refer to response to master comment PD-17 for a discussion of the revised drought recovery policy.

RESPONSE E5-4

Please refer to response to master comment PD-6 for discussion of the issue of unilateral well turn on/off.

RESPONSE E5-5

Comment noted. No further response is required.

RESPONSE E5-6

Please refer to response to master comment PD-5 for a discussion of protection of springs under the Agreement.

The issue of significant effect is described in the introductory statements in each environmental analysis section of Chapters 8 through 16 of the Draft EIR. The standards are based on CEQA Guidelines (Appendix G in CEQA, titled Significant Effects) unless indicated otherwise. The Agreement contains a detailed description of significant effects in Section IV.B (pages B-22 through B-24). Also, please refer to response to master comment MT-7.

RESPONSE E5-7

Livestock grazing is not part of the proposed project. Please refer to response to master comment PD-14 and Appendix B-1 for additional discussion of LADWP's livestock grazing management program.

RESPONSE E5-8

Please refer to response to master comment VE-1 for a discussion of allowable vegetation changes under the Agreement.

RESPONSE E5-9

Since publication of the Draft EIR in September 1990, Los Angeles has enacted an Emergency Water Conservation Ordinance in March 1991. Please refer to response to master comment AL-3 for an update of this program.

RESPONSE E5-10

Please see response to master comment AL-2 for a discussion of water reclamation.

RESPONSE E5-11

This comment expresses a personal opinion unrelated to the content of the Draft EIR. No response is required.

APPENDICES

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Appendix A

Water Resources

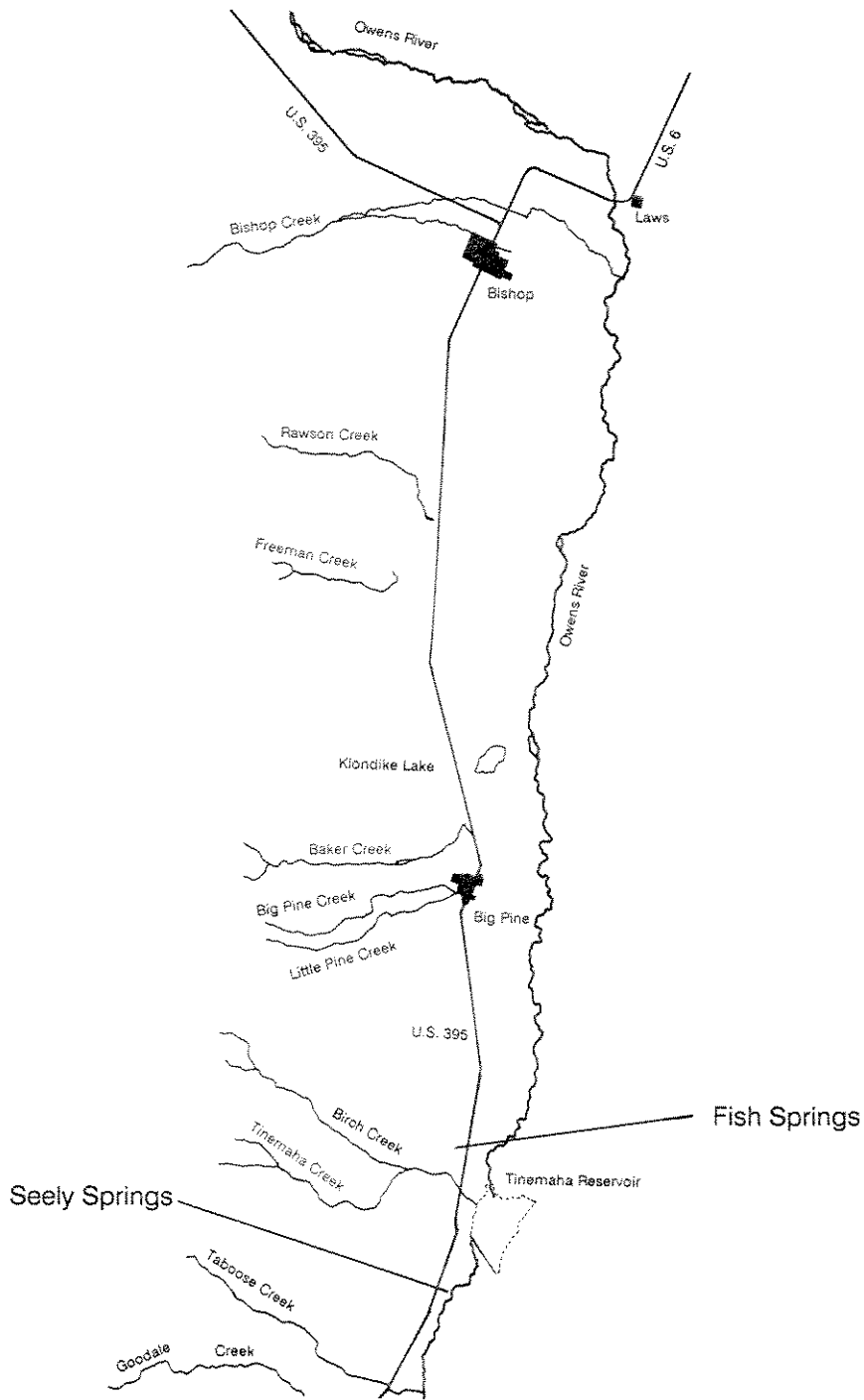
APPENDIX A-1

SELECTED OWENS VALLEY SPRING MAPS

This appendix provides a general depiction of the pre-project and 1990 areal extent of spring and spring-influenced vegetation at Fish Springs, Seeley Springs, Calvert Slough, Hines Spring, Little Blackrock Spring, and Reinhackle Spring (see Figures A1-3 through A1-8). Vegetation associated with several of these springs is identified in the Draft EIR as having been significantly affected by groundwater pumping. (A discussion of these impacts can be found in Chapter 10, Vegetation, on pages 10-59 through 10-62.) Preceding the individual spring maps are north-half and south-half maps of the Owens Valley showing the locations of the springs (Figures A1-1 and A1-2).

The spring maps shown in this appendix are based on qualitative interpretations of 1968 and 1990 aerial photographs. Although the quality and scale of the air photos reduces their interpretability (see responses to master comments VE-5 and VE-6), an attempt was made to provide a general depiction of the approximate areas of the springs. It was not possible to accurately identify the vegetation species at the sites.

A list of plants that possibly occurred at these springs is also included in this appendix in Table A-1. Table A1-1 contains plant species, including plants of special concern, found by LADWP personnel in "Transmontane Alkali Marsh" communities in the valley between 1984 and 1987, augmented with a California Native Plant Society list of plants found in alkaline areas around Owens Lake and a list of Fish Slough plants found in alkaline habitats there. It must be stressed that the list is a researched reconstruction of species that may have occurred at the springs; there may have been plants at the springs that do not appear on this list, and there may be plants on the list that did not occur at the springs.

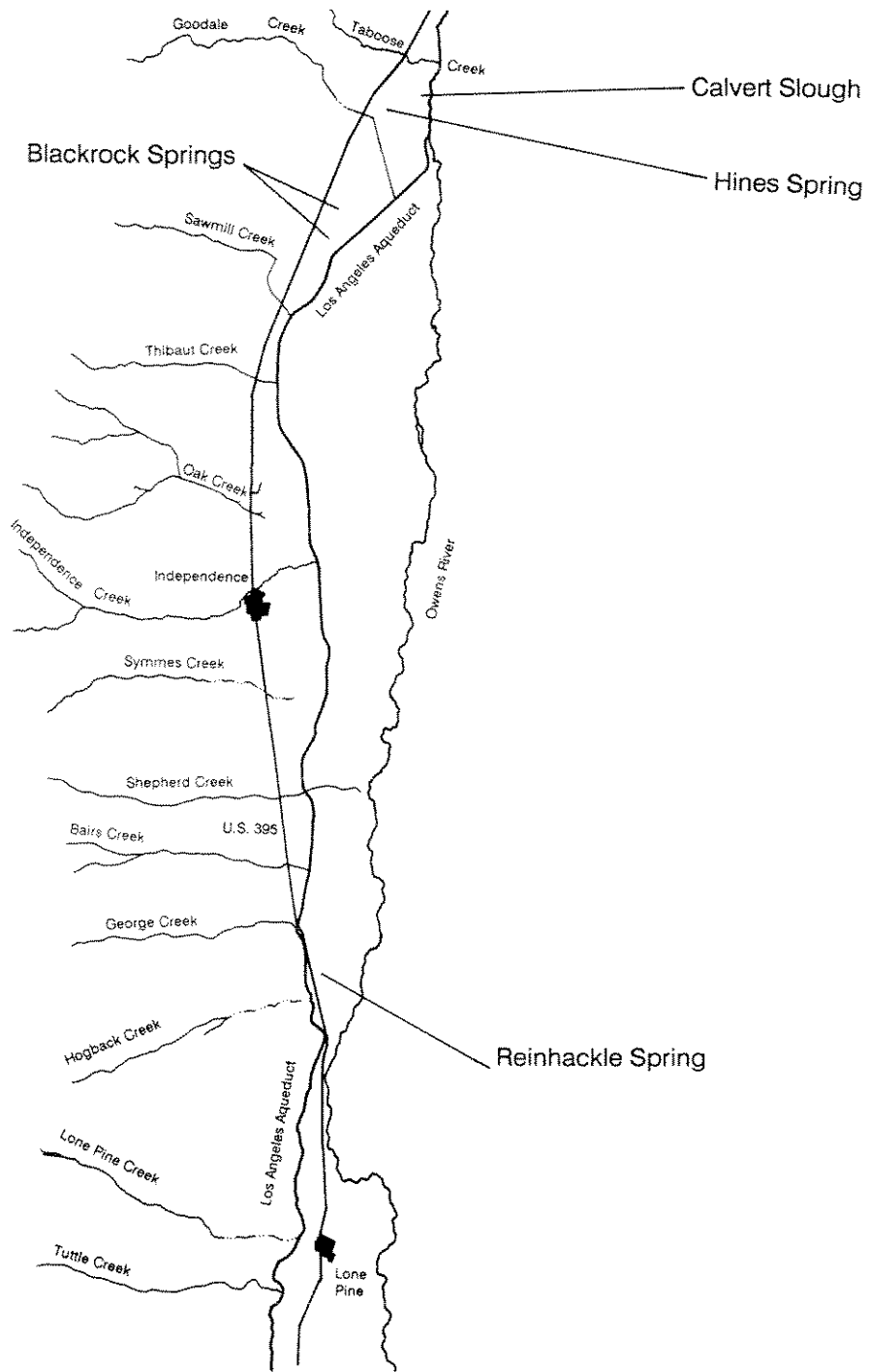


O W E N S V A L L E Y

FIGURE A1-1
 SELECTED OWENS VALLEY
 SPRING LOCATIONS
 NORTHERN HALF

SOURCE: INYO COUNTY WATER DEPARTMENT



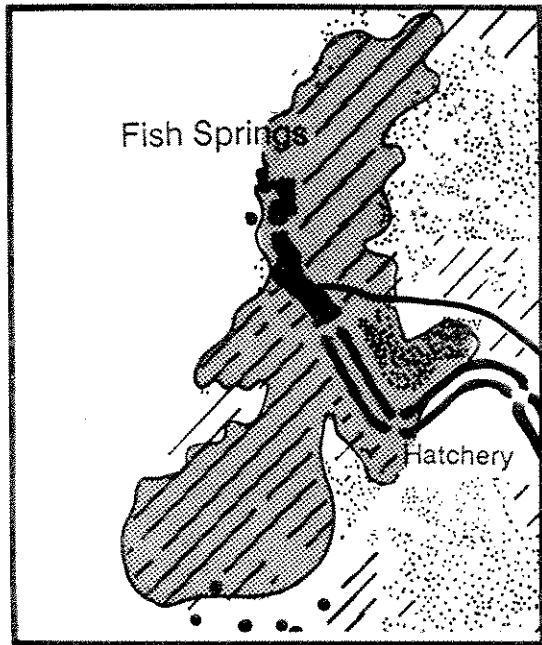


O W E N S V A L L E Y

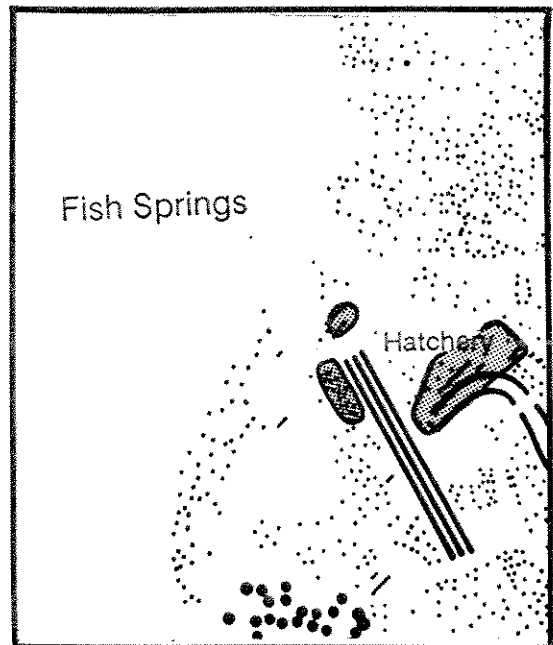
FIGURE A1-2
 SELECTED OWENS VALLEY
 SPRING LOCATIONS
 SOUTHERN HALF

SOURCE: INYO COUNTY WATER DEPARTMENT





1968



1990

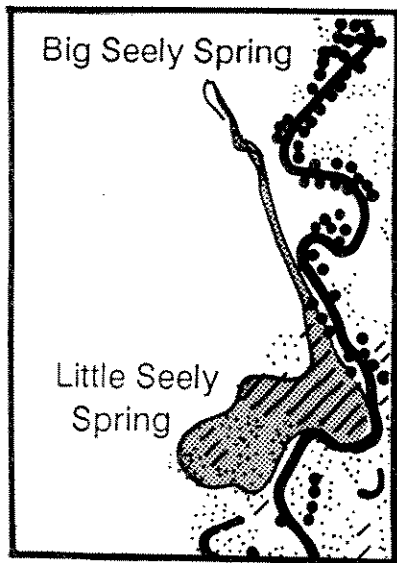
The estimated acreage of spring and spring-influenced vegetation changed from 33 acres in 1968 to two acres in 1990 as shown in the shaded area

O W E N S V A L L E Y

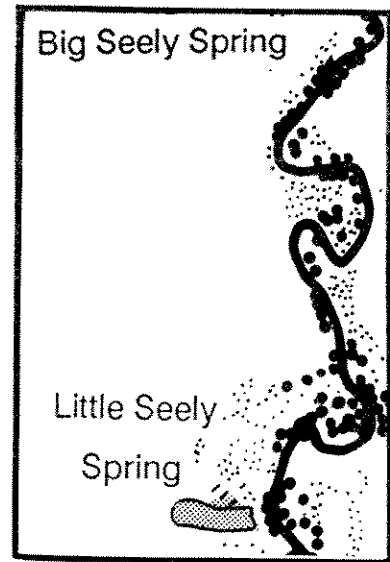
FIGURE A1-3
FISH SPRINGS

SOURCE: INYO COUNTY WATER DEPARTMENT





1968



1990

The estimated acreage of spring and spring-influenced vegetation changed from seven acres in 1968 to one acre in 1990 as shown in the shaded area

O W E N S V A L L E Y

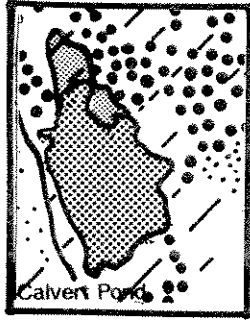
FIGURE A1-4
SEELY SPRINGS

SOURCE: INYO COUNTY WATER DEPARTMENT

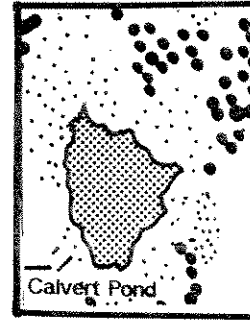
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1968



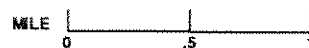
1990

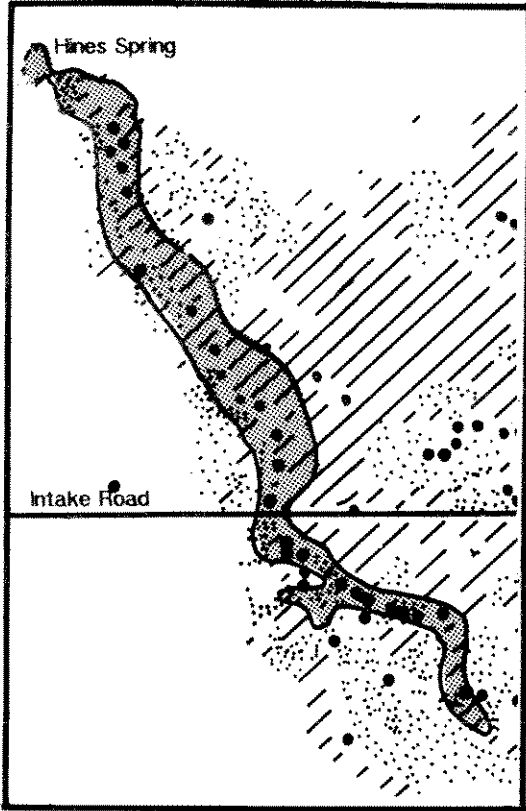
The estimated acreage of spring and spring-influenced vegetation changed from six acres in 1968 to three acres in 1990 as shown in the shaded area

O W E N S V A L L E Y

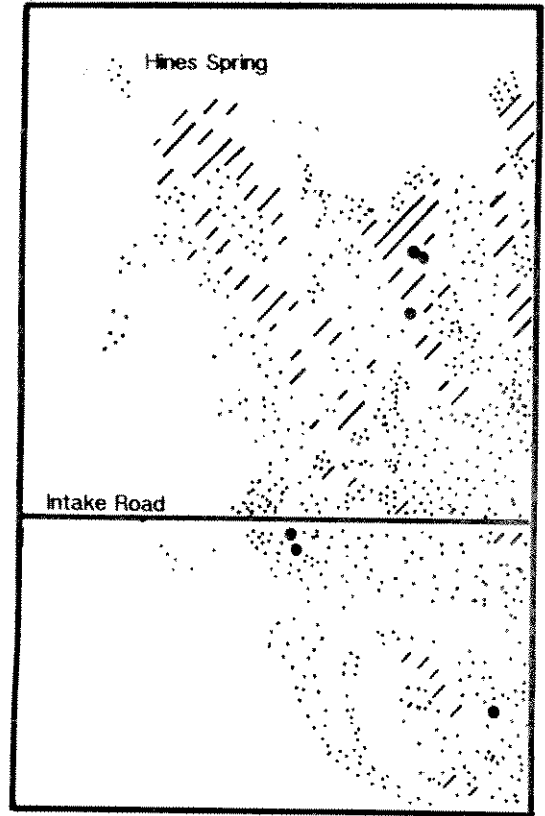
FIGURE A1-5
CALVERT SLOUGH

SOURCE: INYO COUNTY WATER DEPARTMENT





1968



1990

The estimated acreage of spring and spring-influenced vegetation changed from 14 acres in 1968 to zero acres in 1990 as shown in the shaded area

O W E N S V A L L E Y

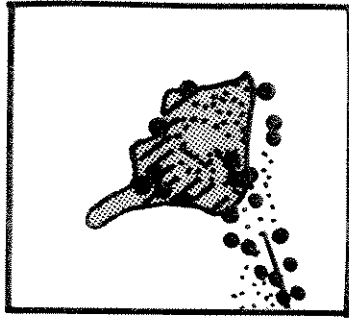
FIGURE A1-6
HINES SPRING

SOURCE: INYO COUNTY WATER DEPARTMENT

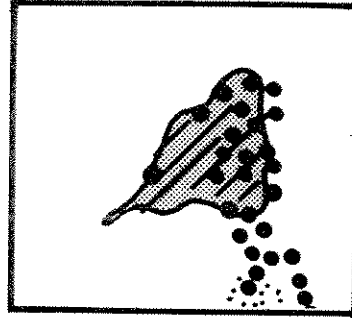
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88041



1968



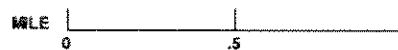
1990

The estimated acreage of spring and spring-influenced vegetation remained the same, three acres, between 1968 and 1990 as shown in the shaded area

O W E N S V A L L E Y

FIGURE A1-7
LITTLE BLACKROCK SPRING

SOURCE: INYO COUNTY WATER DEPARTMENT



eip

88041



1968



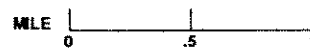
1990

The estimated acreage of spring and spring-influenced vegetation changed from four acres in 1968 to two acres in 1990 as shown in the shaded area

O W E N S V A L L E Y

FIGURE A1-8
REINHACKLE SPRING

SOURCE: INYO COUNTY WATER DEPARTMENT



A list of endangered, threatened, or fully protected animal species that could occur in the Owens Valley is also shown in Table A1-2 of this appendix. Table A1-2 also shows the habitat preferences of these species. It can be assumed that those species known to utilize "Freshwater Aquatic," "Tule Marsh Complex," "Riparian/woodland," or "Alkali grassland" habitat types would use, to some degree, the spring habitats in the valley.

APPENDIX A-1 (Continued)

TABLE A1-1

PLANTS THAT COULD OCCUR AT OWENS VALLEY SPRINGS

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
Agrostis exerata	Spike Bentgrass	MM	PO	3	FACW	PNG
x Agrostis semiverticillata	Water Bentgrass	MM	PO	3	OBL	PIG
Agrostis stolonifera	Bentgrass	MM	PO	3	FACW	PNG
Ambrosia acanthicarpa	Ragweed	S	ASTER	2		
Anemopsis californica	Yerba Mansa	MM	SAURUR	1	OBL	PNF
Apocynum cannabinum	Hemp Dogbane	MM	APOCYN	1	FAC	PNF
Artemisia ludoviciana	Mugwort	MM	ASTER	2	FACU-	PNFH
Artemisia tridentata	Basin Big Sagebrush	S	ASTER	1		
Asclepias fascicularis	Mexican Whorled Milkweed	MM	ASCLEPIAD	2,3	FAC	PNF
Asclepias sp.	Milkweed	MM	ASCLEPIAD	1		
Asclepias speciosa	Showy Milkweed	MM	ASCLEPIAD	3	FAC	PNF
Aster frondosa	Leafy Aster	MM	ASTER	3	OBL	ANF
Aster hesperius	Siskiyou Aster	MM	ASTER	3	OBL	PNF
Aster intricatus	Shrubby Alkali Aster	MM	ASTER	2,3	FACW	NHS
Atriplex confertifolia	Shadscale	S	CHENOPODI	1		
Atriplex patula	Spearleaf Saltweed	MM	CHENOPODI	2,3	FACW	ANF
Atriplex phyllostegia	Leafcover Saltweed	MM	CHENOPODI	2,3	FACW	ANF
Atriplex torreyi	Torrey Saltbush	S	CHENOPODI	1	FAC	NS
Azolla mexicana	Mexican Mosquito Fern	MM	SALVINI	3	OBL	PN/W
x Bassia hyssopifolia	Fivehook Bassia	MM	CHENOPODI	1	FAC	AIF
x Berula erecta	Cut Leaf Water Parsnip	MM	API	2,3	OBL	PIF
Bidens frondosa	Devils Beggartick	MM	ASTER	3	FACW	ANF
x Bromus sp.	Smooth Brome	MM	PO	2		
* Calochortus excavatus	Alkali Mariposa Lily	MM	LILI	1		
Camissonia refracta	Narrow-leaved primrose	MM	ONAGR	2		

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
Carex douglasii	Douglas Sedge	MM	CYPER	2	FACU	PNGL
Carex lanuginosa	Wooly Sedge	MM	CYPER	3	OBL	PNGL
Carex nebraskensis	Nebraska Sedge	MM	CYPER	1	OBL	PNGL
Carex praeegracilis	Clustered Field Sedge	MM	CYPER	1	FACW	PNGL
Carex sp.	Sedge	MM	CYPER	1		
Castilleja minor	Lesser Indian-paintbrush	MM	SCROPHULARI	3	OBL	APNF
* Centaurium exaltatum	Nevada Centaury	MM	GENTIAN	2	FACW	ANF
Chaenactis glabriscula	Common Yellow Chaenactis	MM	ASTER	2		
x Chenopodium glaucum	Oakleaf Goosefoot	MM	CHENOPODI	2	FACW	AIF
Chrysothamnus nauseosus	Rubber Rabbitbrush	S	ASTER	1		
Cicuta douglasii	Douglas Water-hemlock	MM	API	2,3	OBL	PNF
x Cirsium sp.	Thistle	MM	ASTER	1		
Conyza canadensis	Canada Horseweed	MM	ASTER	2,3	FAC	ANF
Cordylanthus maritimus	Alkali Bird's Beak	MM	SCROPHULARI	1	OBL	ANF
Cuscuta salina	Saltmarsh Dodder	MM	CUSCUT	2		
x Cynodon dactylon	Bermudagrass	MM	PO	3	FAC	PIG
Datisca glomerata	Durango Root	MM	DATISC	2	FACW	PNF
x Descurainia sophia	Flixweed Tansymustard		BRASSIC	2		
Distichlis spicata	Saltgrass	MM	PO	1	FACW	PNG
x Elaeagnus angustifolia	Russian Olive	T	ELEAGN	2	FAC	IST
Eleocharis palustris	Common Spikerush	MM	CYPER	3	OBL	PNEGL
Eleocharis parishii	Parish Spikerush	MM	CYPER	2,3	FACW	PNGL
Eleocharis rostellata	Beaked Spikerush	MM	CYPER	2,3	OBL	PNGL
Eleocharis sp.	Spikerush	MM	CYPER	1		
Elodea canadensis	Broad Waterweed	MM	CYPER	3	OBL	PNZF
Epilobium ciliatum	Hairy Willowherb	MM	ONAGR	2,3	FACW	PNF
Epipactus gigantea	Giant Helleborine	MM	ORCHID	3	OBL	PNF
Equisetum laevigatum	Smooth Horsetail	MM	EQUISET	3	FACW	PNH2
Equisetum sp.	Horsetail	MM	EQUISET	1		
Erigeron lonchophyllus	Spearleaf Fleabane	MM	ASTER	3	FAC	BNF
x Erodium cicutarium	Redstem Filaree		GERANI	2		
Euthamia occidentalis	Western Fragrant Goldenrod	MM	ASTER	3	OBL	PNF

Appendix A-1
Table A1-1 (Continued)

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
x Festuca elatior	Meadow Fescue	MM	PO	3	FACU	PIG
Glycyrrhiza lepidota	American Licorice	MM	FAB	1	FAC	PNF
x Gnaphalium chilense	Cottonbatting Cudweed	MM	ASTER	2,3	FAC	ABIF
x Gnaphalium luteoalbum	Weedy Cudweed	MM	ASTER	3	FACW	AIF
Gnaphalium palustre	Lowland Cudweed	MM	ASTER	3	FACW	ANF
Haplopappus racemosus	Cluster Goldenweed	MM	ASTER	1	FAC	PNF
Helianthus annuus	Annual Sunflower	MM	ASTER	1	FAC	ANF
Helianthus nuttallii	Nuttall Sunflower	MM	ASTER	3	FACW	PNF
x Heliotropium curassavicum	Salt Heliotrope	MM	BORAGIN	2,3	OBL	API\$F
Heterotheca subaxillaris	Telegraph Plant		ASTER	2		
Hordeum brachyantherum	Meadow Barley	MM	PO	3	FACW	PNG
Hordeum jubatum	Foxtail Barley	MM	PO	1	FAC	PNG
x Hordeum leporinum	Mediterranean Barley	MM	PO	1	NI	AIG
Iva axillaris	Povertyweed	MM	ASTER		FAC	PNEFH
Juncus balticus	Baltic Rush	MM	JUNC	1	OBL	PNGL
Juncus torreyi	Torrey Rush	MM	JUNC	3	FACW	PNGL
Lemna minima	Duckweed	MM	LEMN	1		
Lemna minor	Lesser Duckweed	MM	LEMN	3	OBL	PN/F
Lemna trinervis	Duckweed	MM	LEMN	3	OBL	PN/F
Lemna sp.	Duckweed	MM	LEMN	3		
Leymus cinereus	Great Basin Wildrye	MM	PO	1	NI	PNG
Leymus salina	Saline Wildrye	MM	PO	3		
Leymus triticoides	Beardless Wildrye	MM	PO	1	FAC	PNG
Lotus oblongifolius	Narrow-leaved Lotus	MM	FAB	2	OBL	PNF
Ludwigia peploides	Floating Seedbox	MM	ONAGR	2	OBL	PNE/F
Lycopus asper	Rough Bugleweed	MM	LAMI	3	OBL	PNEF
Lythrum californicum	California Loosestrife	MM	LYTHR	3	OBL	PNF
x Malva parviflora	Cheeseweed	MM	MALV	2		
x Medicago sativa	Alfalfa	MM	FAB	2		
x Melilotus abla	White Sweetclover	MM	FAB	1	FACU	ABIF
Mentha arvensis	Wild Mint	MM	LAMI	3	FACW	PNF
Mimulus cardinalis	Crimson Monkeyflower	MM	SCROPHULARI	2	OBL	PNF

Appendix A-1
Table A1-1 (Continued)

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
Mimulus guttatus	Common Monkeyflower	MM	SCROPHULARI	2,3	OBL	ANF
Muhlenbergia asperifolia	Alkali Muhly	MM	PO	1	FACW	PNG
x Nasturtium officinale	Watercress	MM	BRASSIC	2,3	OBL	PIZEF
Nitrophila occidentalis	Western Miterwort	MM	CHENOPODI	1	FACW	PNF
Oenothera hookeri	Hooker Evening-primrose	MM	ONAGR	2,3	FACW	PNF
Panicum capillare	Witchgrass	MM	PO	3	FAC	ANG
Paspalum distichum	Knotgrass	MM	PO	3	OBL	PNEG
Pectocarya penicillata	Slender Combseed	MM	BORAGIN	2,3		
Persicaria amphibia	Water Smartweed	MM	POLYGON	3	OBL	PNE/F
Persicaria punctata	Dotted Smartweed	MM	POLYGON	3	OBL	PNEF
Phragmites australis	Common Reed	MM	PO	1	FACW	PNEG
Phragmites communis	Common Reed	MM	PO	1		
Plagiobothrys scouleri	Scouler Popcornflower	MM	BORAGIN	2	FACW	ANF
x Plantago lanceolata	Narrowleaf Plantain	MM	PLANTAGIN	2	FAC	ABPIF
x Plantago major	Broadleaf Plantain	MM	PLANTAGIN	2,3	FAC	PIF
Poa nevadensis	Nevada Bluegrass	MM	PO	2	FAC	PNG
Poa pratensis	Kentucky Bluegrass	MM	PO	2	FACU	PNG
Poa sp.	Bluegrass	MM	PO	1		
x Polygonum aviculare	Prostrate Knotweed	MM	PO	2	FAC	APIF
Polygonum lapathifolium	Pale Smartweed	MM	POLYGON	2,3	OBL	ANF
x Polygonum persicaria	Ladythumb Smartweed	MM	POLYGON	2,3	FACW	AIF
x Polypogon monspeliensis	Rabbit's-Foot-Grass	MM	PO	1	FACW	AIG
Populus fremontii	Fremont's Cottonwood	T	SALIC	1	FACW	NT
x Potamogeton crispus	Curly Pondweed	MM	POTAMOGETON	2	OBL	PIZF
Potamogeton foliosus	Leafy Pondweed	MM	PO	3	OBL	PNZF
Potamogeton illinoensis	Illinois Pondweed	MM	PO	3	OBL	PN/F
Potamogeton latifolius	Broadleaf Pondweed	MM	PO	3	OBL	PNZF
Potamogeton pectinatus	Sago Pondweed	MM	PO	3	OBL	PNZF
Potentilla gracilis	Beauty Cinquefoil	MM	ROS	2	FACW	PNF
x Puccinellia distans	Weeping Alkaligrass	MM	PO	2	OBL	PIG
Ranunculus aquatilis	White Water Buttercup	MM	RANUNCUL	3	OBL	PNZF
Ranunculus cymbalaria	Alkali Buttercup	MM	RANUNCUL	2,3	OBL	PNEF

Appendix A-1
Table A1-1 (Continued)

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
Robinia pseudoacacia	Black Locust	T	FAB	2	FAC	NT
Rorippa palustris	Bog Yellowcress	MM	BRASSIC	3	OBL	ANEF
Rosa woodsii	Woods Rose	T	ROS	1	FAC	NS
Rosa woodsii ultramontana	Rose	T	ROS	3		
x Rumex crispus	Curly Dock	MM	POLYGON	2,3	FACW	PIF
Rumex maritimus	Golden Dock	MM	POLYGON	3	OBL	ABNF
Rumex paucifolius	Mountain Dock	MM	POLYGON	2	OBL	PNF
Rumex salicifolius	Willow Dock	MM	POLYGON	2	OBL	PNF
Ruppia maritima	Widgeongrass	MM	RUPPI	3	OBL	PNZF
Salix exigua	Coyote Willow	T	SALIC	2	OBL	NS
Salix laevigata	Red Willow	T	SALIC	2		
Salix sp.	Willow	T	SALIC	1		
x Salsola kali	Russian Thistle	S	CHENOPODI	2	FACU	AIF
Sarcobatus vermiculatus	Black Greasewood	S	CHENOPODI	1	FACU	NS
Scirpus acutus	Common Tule	MM	CYPER	1	OBL	PNEGL
Scirpus americanus	American Bulrush	MM	CYPER	1	OBL	PNEGL
Scirpus maritimus	Saltmarsh Bulrush	MM	CYPER	3	OBL	PNEGL
Scirpus microcarpus	Panicled Bulrush	MM	CYPER	2	OBL	PNGL
Scirpus nevadensis	Nevada Bulrush	MM	CYPER	2,3	OBL	PNEGL
Scirpus pungens	Threesquare Bulrush	MM	CYPER	3	OBL	PNEGL
Scirpus robustus	Pacific Alkali Bulrush	MM	CYPER	2	OBL	PNEGL
Sida leprosa	Alkali Mallow	MM	MALV	FAC	PNF	
*Sidalcea covillei	Owens Valley Sidalcea	MM	MALV	1		
Sisyrinchium halophilum	Nevada Blue Eye Grass	MM	IRID	2,3	FACW	PNF
Solidago spectabilis	Nevada Goldenrod	MM	ASTER	3	FACW	PNF
*Spartina gracilis	Alkali Cordgrass	MM	PO	1	FACW	PNG
Spiranthes porrifolia	Creamy Ladies-tresses	MM	ORCHID	3		
x Spirodela polyrhiza	Greater Duckweed	MM	LEMN	3	OBL	PI/F
Sporobolus airoides	Alkali Sacaton	MM	PO	1	FAC	PNG
Suaeda torreyana	Inkweed	MM	CHENOPODI	2	FAC	NEH
x Tamarix ramosissima	Saltcedar	T	TAMARIC	1	FAC	IT
x Taraxicum officinale	Dandelion	MM	ASTER	2	FACU	PIF

Appendix A-1
Table A1-1 (Continued)

<u>Latin Name</u>	<u>Common Name</u>	<u>OV Habit</u>	<u>Ref Family</u>	<u>Ref 4</u>	<u>Ref 4 Indic</u>	<u>Habit</u>
*Thelypodium integrifolium	Entire-leaved Thelypod	MM	BRASSIC	1	FACW	BNF
Trifolium variegatum	Whitetip Clover	MM	FAB	2	FACW	ANF
Trifolium wormskoldii	Cows Clover	MM	FAB	2	FACW	PNF
Triglochin debilis	Alkali Arrowgrass	MM	JUNCAGIN	3	OBL	PNF
Typha domingensis	Southern Cattail	MM	TYPH	2	OBL	PNEF
Typha latifolia	Common Cattail	MM	TYPH	1	OBL	PNEF
x Utricularia vulgaris	Common Bladderpod	MM	LENTIBULARI	3	FACW	PIF
Veronica anagallis-aquatica	Water Speedwell	MM	SCROPHULARI	2	OBL	BPNEF
Xanthium strumarium	Canada Cocklebur	MM	ASTER	1	FAC	ANF
Zannichellia palustris	Horned Pondweed	MM	ZANNICHELLI	3	OBL	PNZF

KEY:

* = plants of special concern

x = non-natives; typically occur due to human activity

OV HABIT: T = Tree

MM = Marsh and/or Meadow

S = Shrub

for complete family name, add suffix 'ACEAE'

REF 4 INDIC: status as a wetland indicator plant according to Reed (1988)

OBL = Obligate Wetland

FACW = Facultative Wetland

FAC = Facultative

FACU = Facultative Upland

UPL = Upland

REF 4 HABIT: plant characteristics according to Reed (1988)

A = Annual	S = Shrub	Z = Submerged
B = Biennial	F = Forb	E = Emergent
P = Perennial	T = Tree	/ = Floating
N = Native	E = Emergent	\$ = Succulent
I = Introduced	G = Grass	HS = Half Shrub
H = Woody	GL = Grasslike	H2 = Horsetail

REF: reference

- 1 = LADWP 1984-1987 Vegetation Inventory Data
 - 2 = DeDecker, Mary. Owens Lake Plant List
 - 3 = Forbes, H.C., W.R. Ferren and J.R. Haller. 1988. The vegetation and flora of Fish Slough and vicinity, Inyo and Mono Counties, California, with appendix. pp. 99-138 in C.A. Hall and V. Doyle-Jones, eds. Plant Biology of Eastern California.
 - 4 = Reed, P.B. 1988. National list of plant species that occur in wetlands: California
-

TABLE A1-2
 ENDANGERED, THREATENED, FULLY PROTECTED SPECIES, AND
 SPECIES OF CONCERN THAT COULD OCCUR AT OWENS VALLEY SPRINGS

<u>Species</u>	<u>Status</u>	<u>Habitat Type</u>
Golden eagle (<i>Aquila chrysaetos</i>)	CSC,CFP*	BCD
Swainson's hawk (<i>Buteo swainsoni</i>)	ST,2	BCD
Prairie falcon (<i>Falco mexicanus</i>)	CSC*	BCD
Northern Harrier (<i>Circus cyaneus</i>)	CSC	B,C
Western yellow-billed cuckoo (<i>Coccyzus americanus</i> ssp. <i>nivosus</i>)	SE,2	BC
Long-eared owl (<i>Asio otus</i>)	CSC	C
Willow flycatcher (<i>Empidonax traillii</i>)	CSC,FSS*	C
Yellow warbler (<i>Dendroica petechia</i> ssp. <i>brewsteri</i>)	CSC*	C
Yellow-brested chat (<i>Icteria virens</i>)	CSC*	C
Least bittern (<i>Ixobrychus exilis</i>)	CSC*	A,B
White-faced ibis (<i>Pilegadis chihi</i>)	CSC,2*	B
Long-billed curlew (<i>Numenius americanus</i>)	2*	B
Short-eared owl (<i>Asio flammeus</i>)	CSC*	B,C
Bank swallow (<i>Riparia riparia</i>)	ST*	A,B,C
Inyo California towhee (<i>Pipilo crissalis eremophilus</i>)	SE,FT	B,C
Owens pupfish (<i>Cyprinodon radiosus</i>)	SE,FE	A

<u>Species</u>	<u>Status</u>	<u>Habitat Type</u>
Owens Valley vole (<i>Microtus californicus</i> ssp. <i>vallicola</i>)	2	D
Ringtail cat (<i>Bassariscus astutus</i>)	CFP	C

Status Codes:

- SE Listed as Endangered by the State of California
 ST Listed as Threatened by the State of California
 CSC California Department of Fish and Game
 "Species of Special Concern:
 FE Listed as Endangered by the Federal Government
 FT Listed as Threatened by the Federal Government
 FSS Federal (BLM and USFS) Sensitive Species
 2 Category 2 Candidate for Federal listing (Taxa which existing information indicates may warrant listing, but for which substantial biological information to support a proposed rule is lacking).
 * Denotes that status applies primarily to conditions in the species' breeding areas, nesting colonies or rookeries, or wintering areas.

Habitat Types:

- A--Freshwater aquatic
 B--Tule Marsh Complex
 C--Riparian/woodland
 D--Alkali grassland
-



APPENDIX A-2

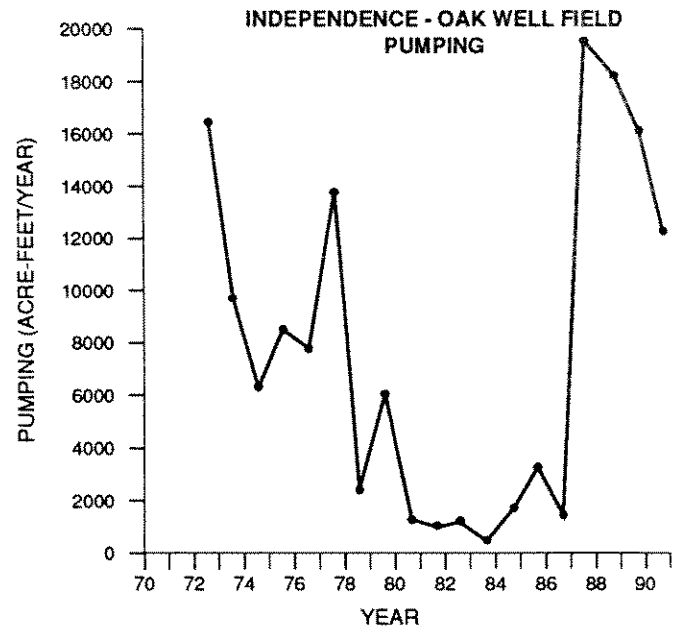
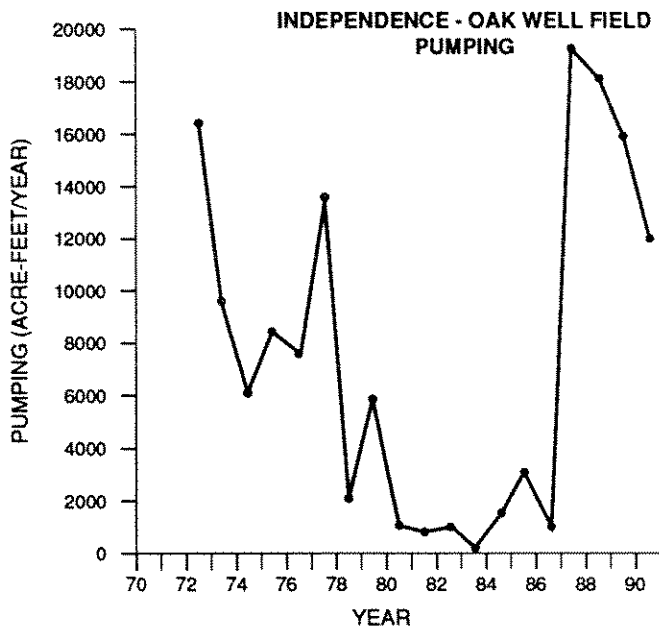
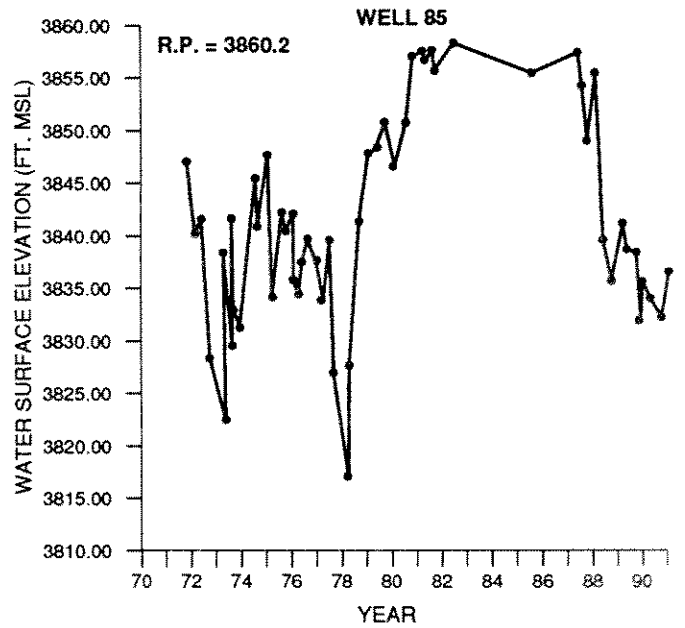
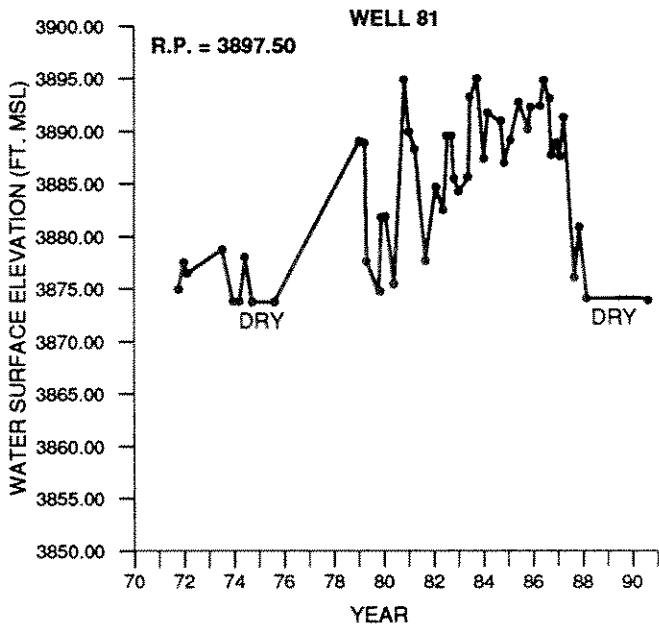
**ANALYSIS OF GROUNDWATER LEVELS
NEAR INDIAN RESERVATIONS**

The following analyses are in response to comments received during the review period of the September 1990 Draft EIR, concerning the effects of groundwater pumping and periods of drought on groundwater levels in and around the Fort Independence and Big Pine Reservations, from 1970 to present. General information and discussion on historic pumping and groundwater level fluctuations in the Owens Valley can be found in Volume I, Chapter 9, Water Resources, of the Draft EIR. Hydrologic data for the areas within the Fort Independence and Big Pine Reservations are very limited, therefore the following analyses are based on wells surrounding these reservations. The proximity of these wells to the reservations, and the quantities of data available from these wells, allow for interpolation across the reservations. These studies are on-going; more detailed numerical analysis will follow in the future.

FORT INDEPENDENCE INDIAN RESERVATION

Water level data from wells 46, 48, 81, 85, 88, 161, 333, 452T, and 453T were utilized in examining water level declines in the Fort Independence Area by Hutchison (1989) in a report to the Fort Independence Indian Tribe. Wells 81, 85, 88, and 333 were found to be most useful for analyzing hydrologic conditions in the area, and locations and updated hydrographs of these wells are presented in Figures A2-1 through A2-3. These wells are considered more useful as they tap deeper aquifers (as do domestic wells in the area), were of close proximity to the reservation, and are less sensitive to seasonal water level changes in the shallow unconfined aquifer caused by evapotranspiration, precipitation, etc.

In comparing hydrographs of water levels in these wells versus annual pumping in the Independence - Oak Well Field, it was determined that water levels were influenced by both drought

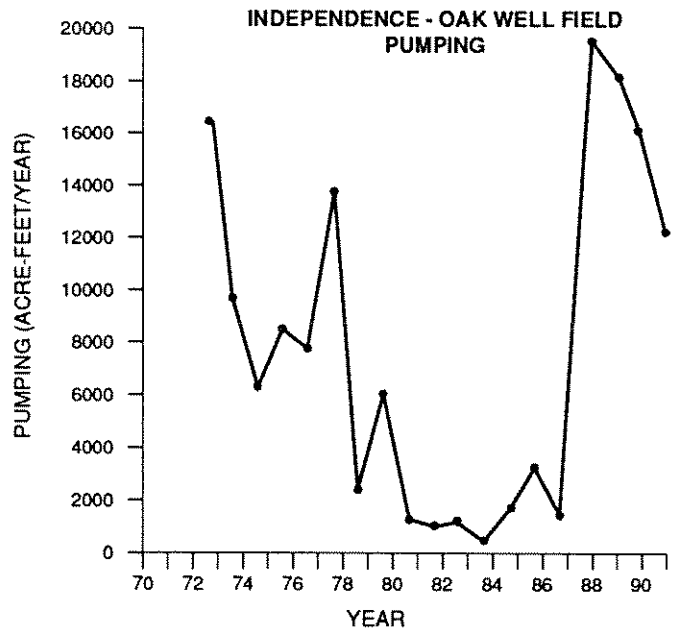
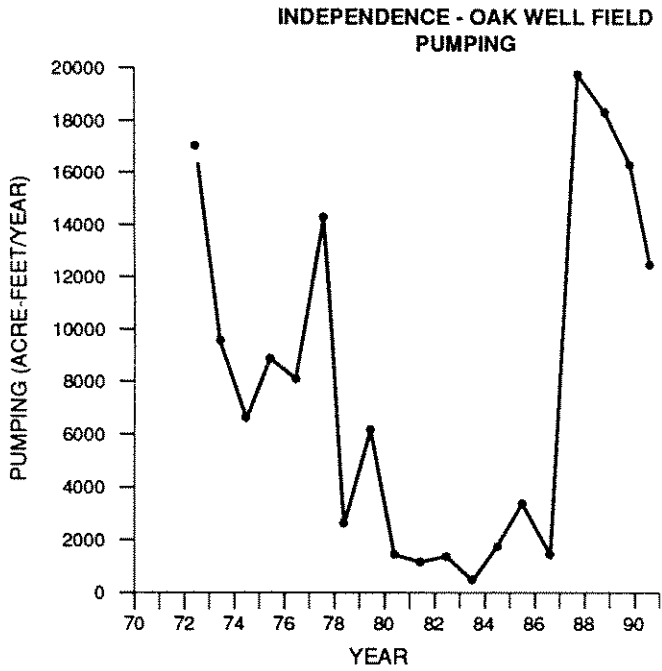
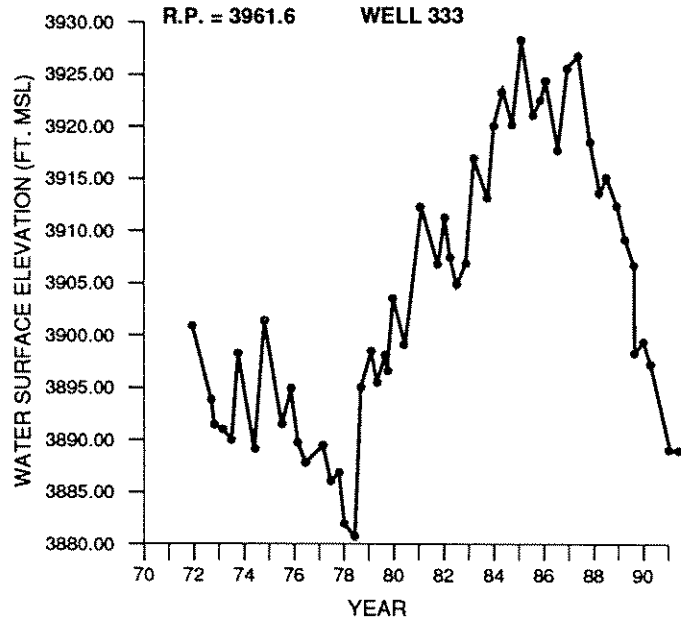
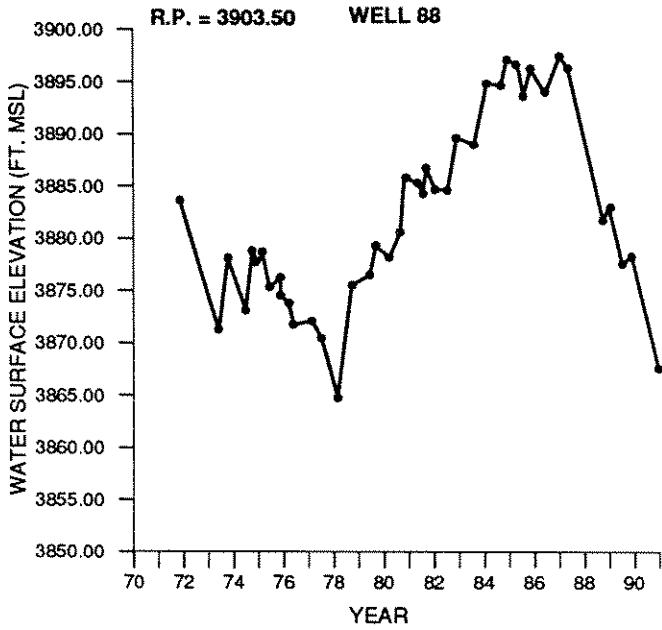


O W E N S V A L L E Y

FIGURE A2-2
HYDROGRAPHS OF WELLS 81 & 85
AND INDEPENDENCE WELL
FIELD PUMPING

SOURCE: INYO COUNTY WATER DEPARTMENT, LADWP





O W E N S V A L L E Y

FIGURE A2-3
HYDROGRAPHS OF WELLS 88 & 333
AND INDEPENDENCE WELL
FIELD PUMPING

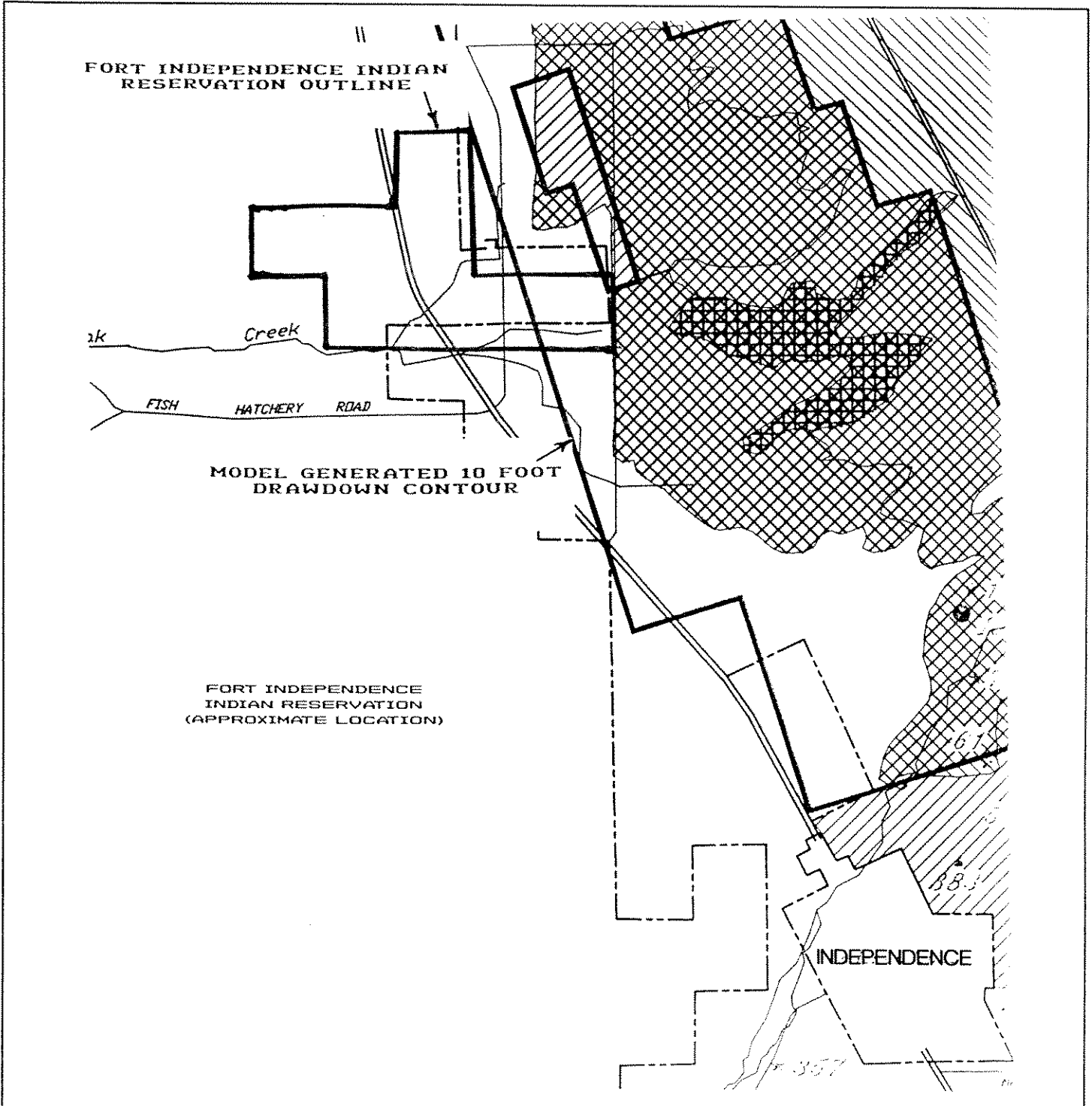
SOURCE: INYO COUNTY WATER DEPARTMENT, LADWP



and pumping (Hutchison, 1989). Further analysis using the existing numerical models for the area will be needed to attempt to separate the effects of pumping and drought, and to complete this analysis.

The hydrographs for each of these wells show relatively low water levels in the early 1970s in response to pumping. Water level recovery occurred in the early to mid 1980s as pumping decreased and recharge increased due to abundant precipitation. Water levels began to decline again in 1987 when pumping increased and recharge decreased due to drought. The cessation of pumping at wells 15, 16, and 77 resulted in minor recoveries in October 1987; however, water levels continued to decline thereafter. Currently, well 81 remains dry, water levels in 85 and 333 are beginning to show recovery (production wells were turned off and remain off as the drought persists), and 88 (an irrigation well) shows further water level decline. Current water levels in these wells are approximately 10 to 15 feet lower than those recorded in 1972; however, short-term fluctuations of up to 50 feet have occurred during this time period.

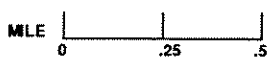
A computer model of the Owens Lake Basin area was constructed and documented by the Los Angeles Department of Water and Power in 1988 in a cooperative effort with Inyo County. This Owens Lake Basin Model was then used to develop the 10-foot drawdown contour that is depicted in vegetation management maps of Volume 2 of the Draft EIR and discussed in Chapter 9, Water Resources, Impact 9-12. This contour represents drawdown in the shallow, unconfined aquifer, under the assumed worst-case scenario involving pumping of all existing wells and recharge conditions of April 1977 to March 1978 (a drought period) repeated three consecutive years. The area within the contour is the area where the water table could be expected to decline at least 10 feet, and includes areas where groundwater-dependent vegetation is present, and thus would be susceptible to significant vegetation decrease or change. Figure A2-4 shows that the eastern portion of the reservation would probably be impacted given the modeled conditions. In comparison, water levels (Figure A2-5) in shallow observation wells 452T and 453T in the unconfined aquifer have dropped approximately 5 to 10 feet since the onset of the present drought and have fluctuated approximately 5 to 20 feet since measurements began at these wells in 1974. Water levels in test holes in the shallow unconfined aquifer (452T and 453T) continue to decline, while some of the deep test holes in the deeper confined aquifer remain static or show slight recovery. Wells 452T and 453T are located in irrigated areas. Well 453T, the farthest from pumping wells, has experienced greater water level fluctuations.

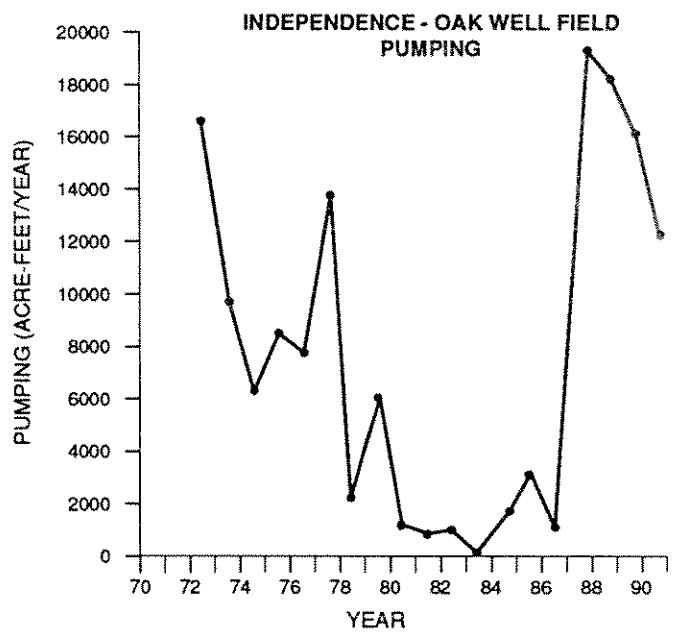
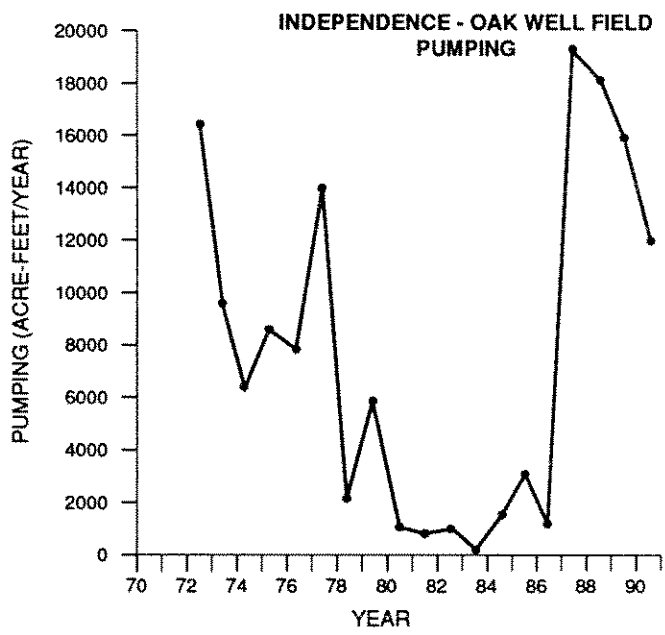
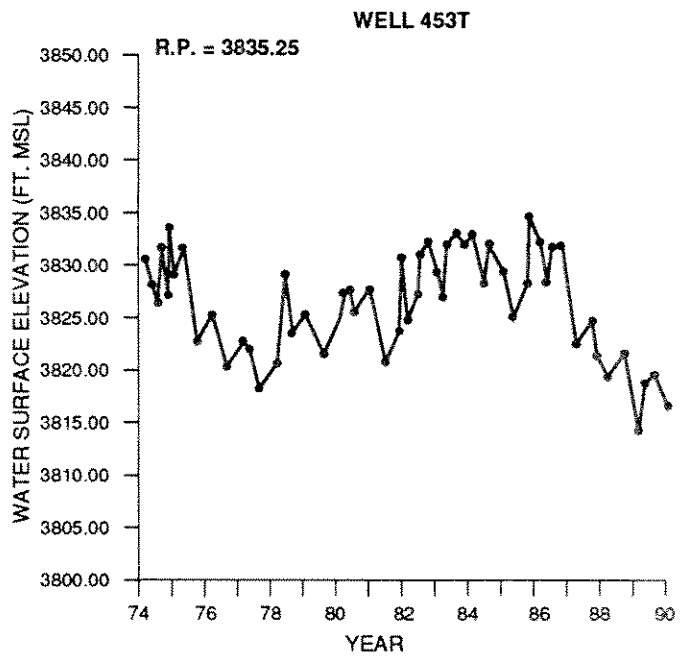
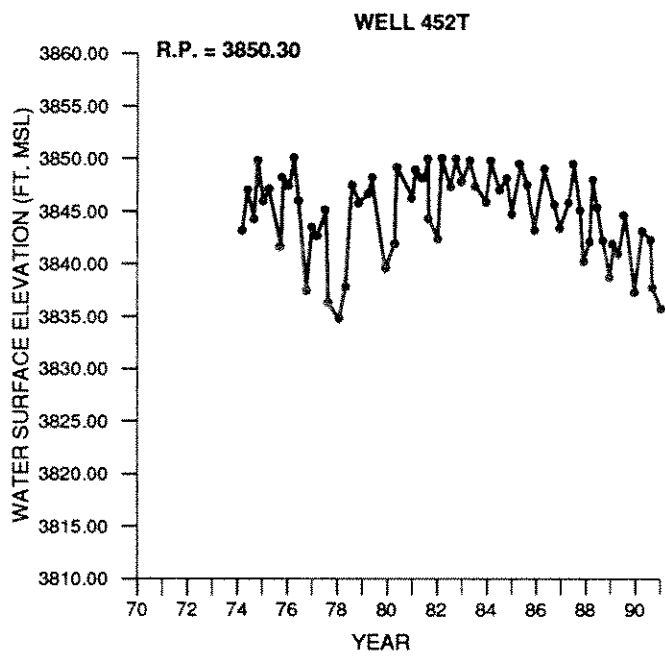


O W E N S V A L L E Y

FIGURE A2-4
 FORT INDEPENDENCE INDIAN RESERVATION AND MODEL GENERATED 10-FOOT DRAWDOWN CONTOUR

SOURCE: INYO COUNTY WATER DEPARTMENT





O W E N S V A L L E Y

FIGURE A2-5
HYDROGRAPHS OF WELLS 452T
AND 453T AND INDEPENDENCE
WELL FIELD PUMPING

SOURCE: INYO COUNTY WATER DEPARTMENT, LADWP

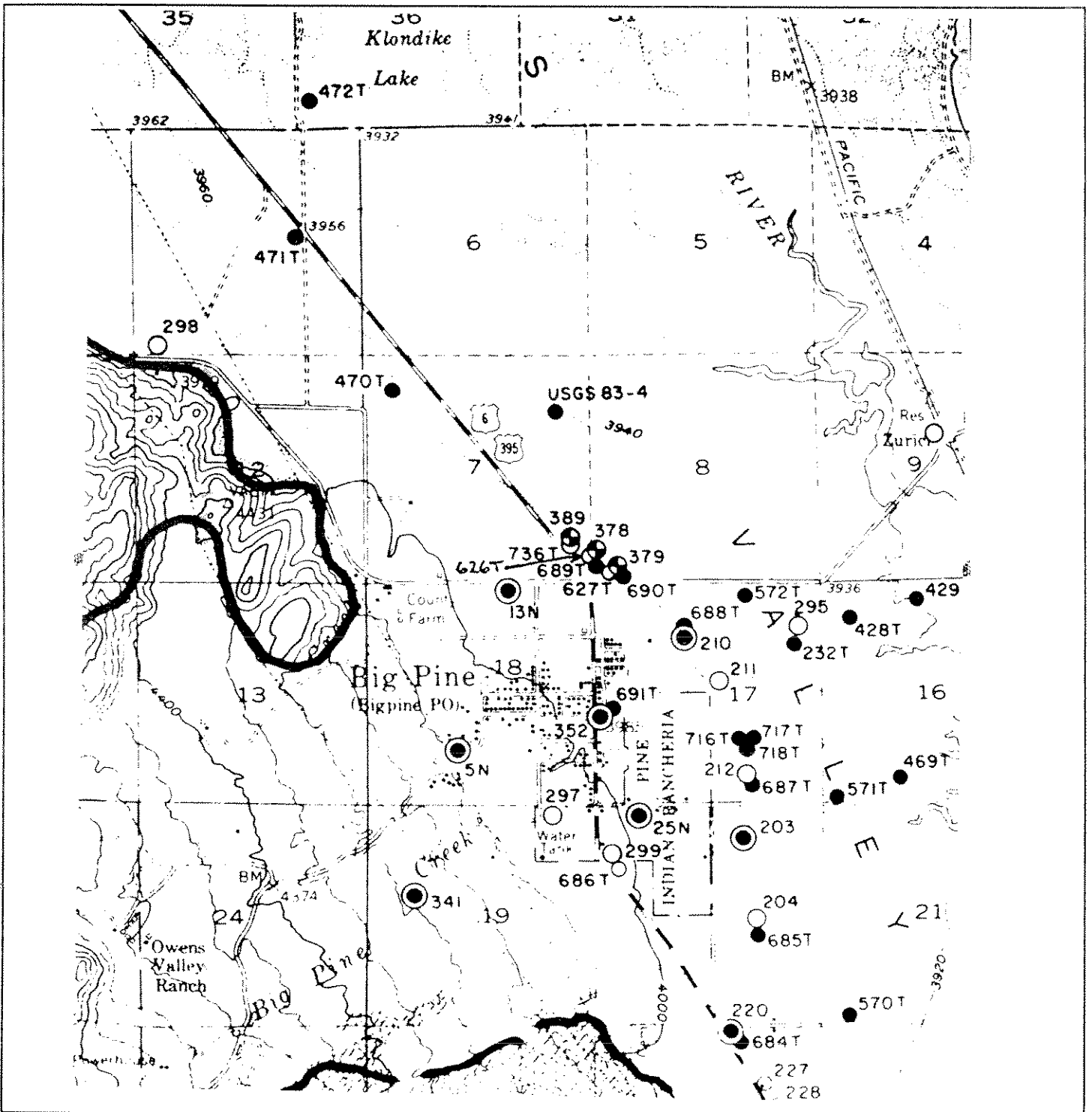


BIG PINE RESERVATION

Water level data since 1971 for wells 25N, 297, 299, indicate that the high water level recorded in the vicinity of the reservation has been approximately 50 feet. Hydrographs for these wells are shown in Figures A2-7 and A2-8, and are compared to annual pumping in the Big Pine Well Field. Locations for these wells are shown in Figure A2-6. Other wells located in the immediate vicinity of the Big Pine Reservation are of little use in this analysis because of their short period of record (686T and 691T do not predate the present drought), or because they have been dry for nearly their entire period of record (716T, 717T and 718T are also of short record).

The hydrographs for each of these wells are quite similar. The early 1970s are a period of relatively high water levels with the highest peaks in 1971 (beginning of record) and 1974 when pumping was at very low levels. The drought of the late 1970s was accompanied by relatively high pumping (over 30,000 AFY in the Big Pine Well Field) and corresponding low water levels. Decreased pumping and increased recharge due to abundant precipitation during the early to mid 1980s led to general increases in water levels comparable to those in the early 1970s. High pumping beginning in 1986 accompanied by the onset of the current drought have lowered water levels to depths lower than those measured during the drought in 1977-78.

A computer model of the Bishop Basin area of the Owens Valley was constructed and documented by Inyo County in 1988 (Hutchinson, 1988) in a cooperative effort with LADWP to model the Owens Valley Groundwater Basin. This model was used to determine the individual effects of groundwater pumping and drought on groundwater levels throughout the Bishop Basin Area (Radell, 1989). The results of this study suggested that pumping played the dominant role in declining water levels in the Big Pine area. The study examined three scenarios: 1) allowing both recharge and pumping to vary as they have historically, 2) keeping pumping constant and fluctuating recharge, and 3) keeping recharge constant and fluctuating pumping. The model showed little sensitivity to decreasing recharge; however, large water level changes occurred with varying pumping rates. The model also showed that above average recharge provides recovery to depressed water levels. Based on these results, the largest portion of water level decline in the Big Pine area from 1971-90 (generally 5 to 10 feet) can most likely be attributed to pumping. With increased recharge and decreasing pumping in the Big Pine Well Field, these water levels will recover.

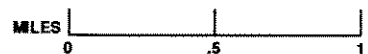


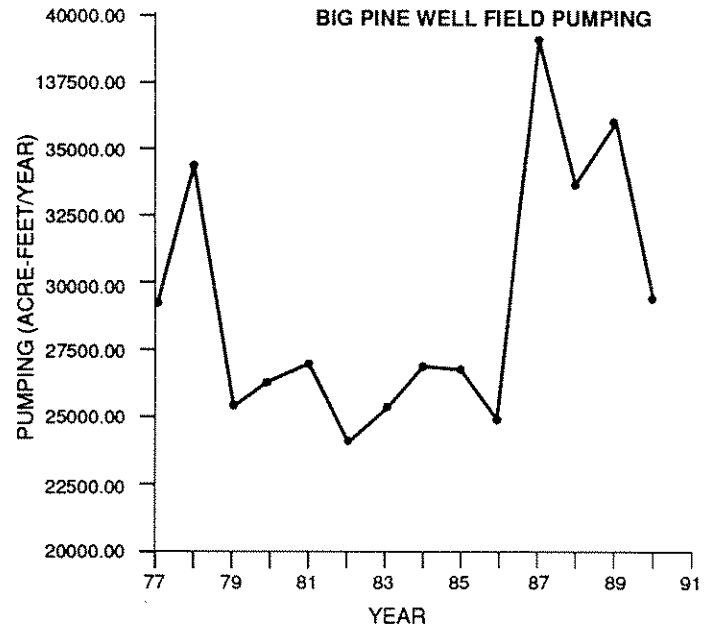
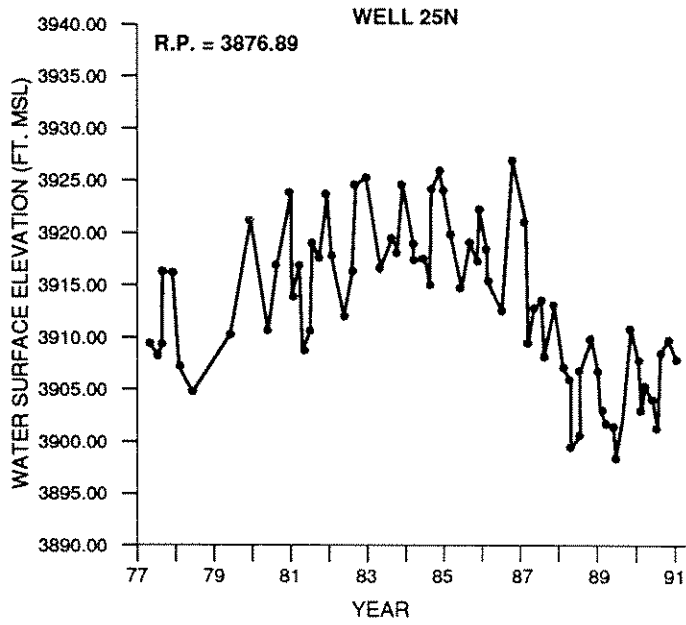
O W E N S V A L L E Y

FIGURE A2-6
 LOCATION OF WELLS
 AROUND BIG PINE

- Pump Equipped Well
- Shallow Observation Well
- Deep Observation Well

SOURCES: USGS, LADWP



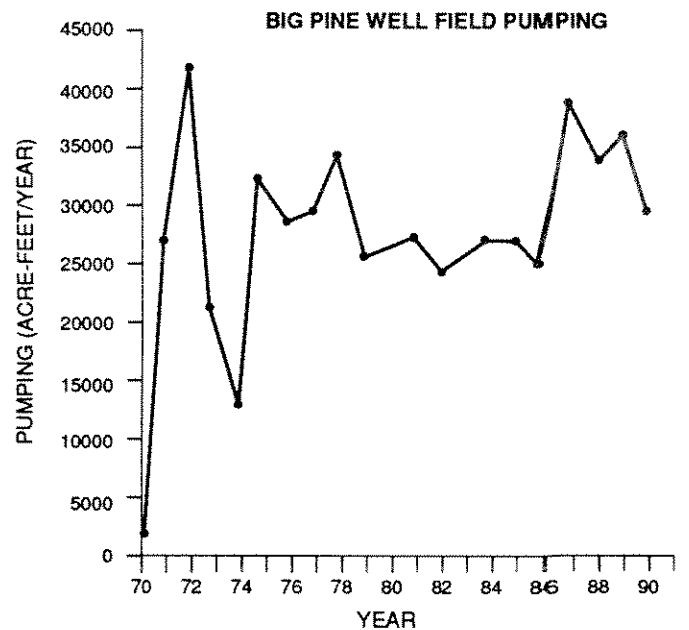
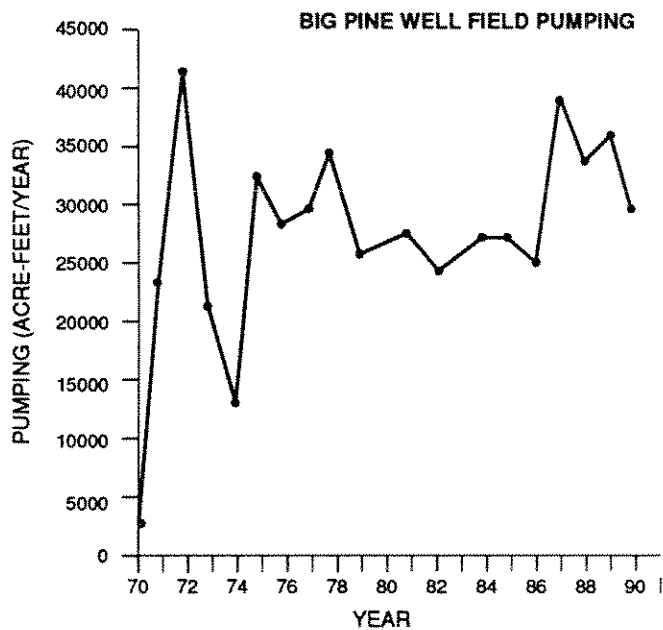
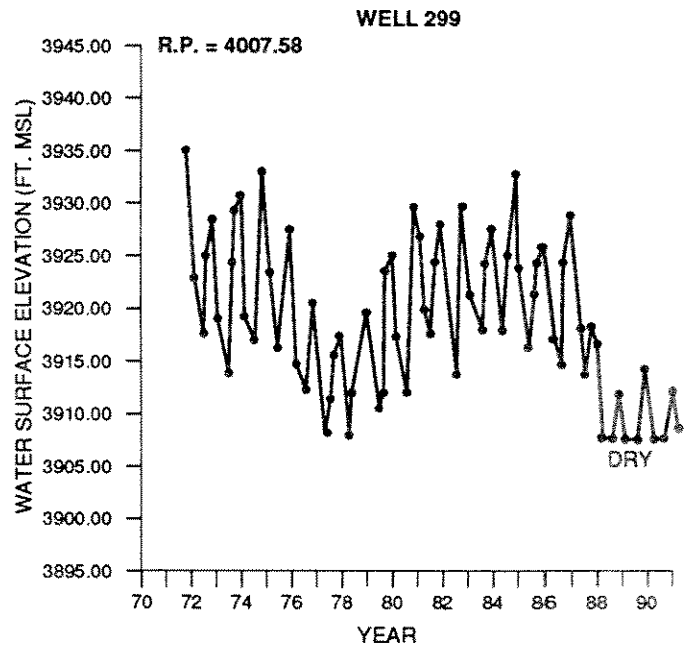
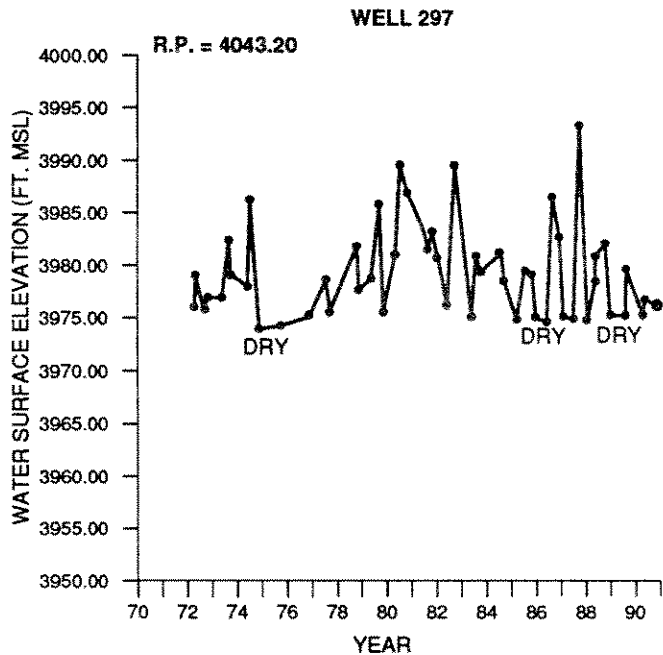


O W E N S V A L L E Y

FIGURE A2-7
 HYDROGRAPHS OF WELLS 25N
 AND BIG PINE WELL
 FIELD PUMPING

INYO COUNTY WATER DEPARTMENT, LADWP





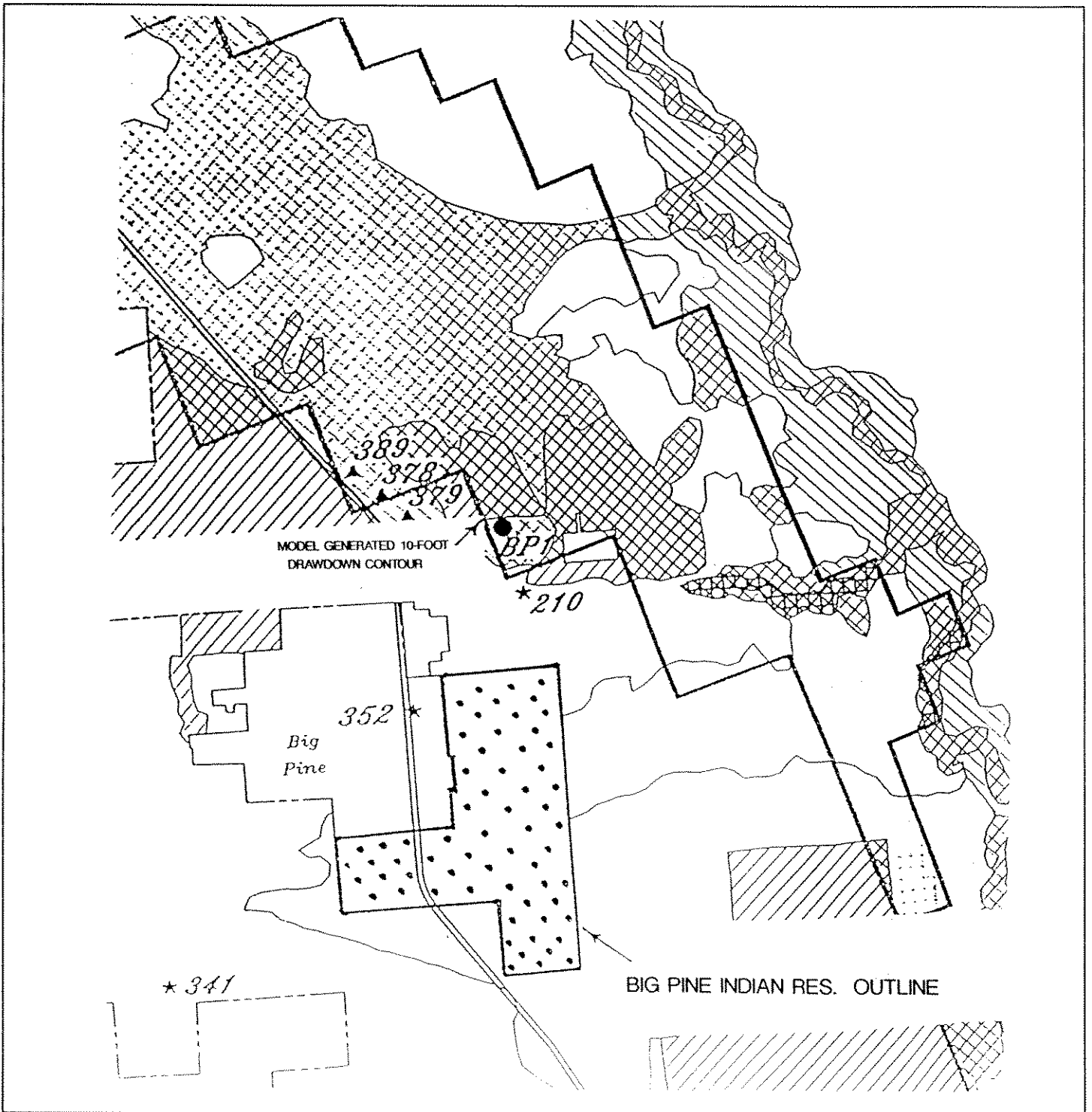
O W E N S V A L L E Y

FIGURE A2-8
HYDROGRAPHS OF WELLS 297
AND 299 AND BIG PINE
WELL FIELD PUMPING

SOURCE: INYO COUNTY WATER DEPARTMENT, LADWP



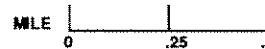
The Bishop Basin model was also used to develop the 10-foot drawdown contours that are depicted in the vegetation maps in Volume 2 of the Draft EIR, and County of Inyo, 1990), under the same assumptions as the 10-foot drawdown contours described in the previous section. Figure A2-9 shows this contour located to the east of the Big Pine Reservation indicating that the reservation would experience less than 10-feet of shallow unconfined water level decline given the modeled conditions.



O W E N S V A L L E Y

FIGURE A2-9
 BIG PINE RESERVATION
 AND MODEL-GENERATED
 10-FOOT
 DRAWDOWN CONTOUR

SOURCE: INYO COUNTY WATER DEPARTMENT





APPENDIX A-3
USGS LETTER ON GROUNDWATER MINING





United States Department of the Interior

GEOLOGICAL SURVEY

District Office
 Water Resources Division
 2800 Cottage Way, Room W-2234
 Sacramento, California 95825



August 20, 1990

Mr. Gregory L. James, Director
 Inyo County Water Department
 302 W. Line Street, Suite C
 Bishop, California 93514

R E C E I V E D
 AUG 28 1990

Inyo Co. Water Department

Dear Mr. James:

In response to a request by William Hutchison, Inyo County Hydrologist, to Kenneth Hollett on August 1, 1990 concerning the section of the "Green Book for the Long-Term Groundwater Management Plan for Owens Valley and Inyo County" on "Determining Existence of Groundwater mining," we have reviewed the subject section for technical accuracy and agreement with our interpretation of the ground-water system. Our interpretation was developed on the basis of our cooperative ground-water and plant-survivability studies with Inyo County and Los Angeles Department of Water and Power (LADWP), 1982 through 1989.

On the basis of information in the Green Book, a goal of particular interest to Inyo County and LADWP in the implementation of the long-term ground-water management plan for the valley is to avoid long-term ground-water mining in the Owens Valley. The method to reach this goal is predicated on the assumption that ground-water pumping for any well field over a 20-year period does not exceed the total recharge to the same well field area over the same period. If long-term ground-water withdrawal exceeds long-term recharge for a particular well-field area than, by definition, ground-water in storage would be depleted and would be said to be mined. As with any ambiguous technical term, such as "ground-water mining", the meaning is reliant on an accurate definition and use of the term. The Green Book adequately and accurately defines the term ground-water mining. Furthermore, the concepts that form the basis of the definition, as documented in the Green Book, were developed in scientifically sound manner on physically based data and interpretations that were currently available. This is not to suggest however, that future data and subsequent reevaluation of the concept of ground-water mining may not be warranted. As with any native system, such as the ground-water system in Owens Valley, analytically based definitions and management plans may need to be modified as conceptual and numerical models are further defined by more data and testing.

In summary, it appears that the discussion in the Green Book that addresses "Determining Existence of Groundwater Mining (Pg. 100-116)" is technically defensible and articulately presented. I hope that this discussion answers the needs Mr. Hutchison expressed. We are supportive of the process being made in developing a viable and lasting long-term groundwater management plan in the Owens Valley.

With best regards,



John M. Klein
District Chief

cc: Melvin L. Blevins, Los Angeles, CA
William Hutchison, Woodland, CA
Eugene Coufel, Los Angeles, CA
Dennis Williams, Los Angeles, CA

APPENDIX A-4

LEGAL INTERPRETATIONS OF CHANDLER AND HILLSIDE DECREES



ANTONIO ROSSMANN

Attorney at Law

380 HAYES STREET

SAN FRANCISCO, CALIFORNIA 94102

(415) 861-1401 FAX (415) 861-1822

ADMITTED IN CALIFORNIA
NEW YORK AND
THE DISTRICT OF COLUMBIA

11 July 1991

Board of Supervisors of the County of Inyo
Courthouse
Independence, California 93526

Re: Compliance of Water Agreement with Chandler and *Hillside*
decrees

Honorable Members of the Board:

To assist your Board in responding to comments on the draft EIR on "water from the Owens Valley to supply the Second Los Angeles Aqueduct (1990 onward, pursuant to a long term groundwater management plan)," your Board has requested this office and a disinterested academic expert in water resources law to evaluate the compliance of the long term plan (water agreement) with the Chandler and *Hillside* decrees. This letter and its attachment respond to the Board's request, and conclude that the agreement as drafted and described in the draft EIR does not violate either the Chandler or the *Hillside* decrees.

Upon receipt and review of public comments on the draft EIR, this office concurred with your Director of the Water Department that additional legal review of the Chandler and *Hillside* decrees would be warranted to resolve the public's concern on this issue. This writer, as special counsel to the County since 1976, independently reviewed the 1922 Chandler decree (with which this writer had become familiar in presenting the County's opposition to the Rancho Riata Hydro Project in the Bishop Creek drainage), and the 1940 *Hillside* decree, as well as the 1938 California Supreme Court decision (*Hillside Water Co. v. City of Los Angeles* (1938) 10 Cal.2d 677) that preceded the *Hillside* decree.

This office tentatively opined that the Chandler decree did not require that Los Angeles' use of Bishop Creek water as successor under that decree be confined to in-basin use. This opinion was and remains grounded in the following premises: the decree serves only to divide the waters of Bishop Creek among the users of water upstream and downstream of Power Plant Six, and expressly does not declare the respective rights among the individual downstream users (of which Los Angeles as successor in interest to downstream users is one). (These provisions appear in articles IX and X of the Chandler decree, respectively.) The use of language in the decree describing the downstream owners' use of water "on said lands" is a term of legal art to demonstrate that the decree refers to a perfected right of use; but does not limit the ability of an overlying owner, under California water law, to appropriate such water out of the basin.

This office did not reach a conclusion on the *Hillside* decree, because we lacked the pleadings leading up to that decree, and did not fully understand the nature of Los Angeles' proposed operations. In the intervening time, the Water Director has supplied this office with the pleadings leading up to the 1940 decree, and has reaffirmed the description in the draft EIR of Los Angeles' operations: that "downstream" of each existing or proposed well operation, Los Angeles will irrigate its surface lands with at least as much water as is extracted from each of those operations.

Based upon the file in the *Hillside* case, and the description of operations, this office concludes that the proposed operation will not violate the *Hillside* decree's express prohibition of groundwater export from Los Angeles' wells on the Bishop Cone. Los Angeles may, upon modification of the Court of Appeal's injunction at 61 Cal.App.3d 101,¹ substitute groundwater for surface water supplied to its Bishop Cone lands, and pump as much groundwater as it uses on those lands.

Because of the importance of these two legal questions to the citizens of the Owens Valley, your Board also requested independent review by an academic expert in water resources law. This review has been conducted by Professor Joseph L. Sax, the endowed professor of environmental regulation at the University of California, Berkeley (Boalt Hall)

¹In its 1976 decision in *County of Inyo v. City of Los Angeles*, 61 Cal.App.3d 91, the Court of Appeal in order to prevent an increased export of surface supplies to offset the Court's limitation on groundwater export, prohibited Los Angeles from "decreas[ing] the quantities of water (whether from subsurface or surface sources) supplied to Owens Valley users below the levels customarily maintained since May 1975." (Id. at p. 101.) Because the proposed water agreement will substitute for the Court's injunctive orders (just as the interim agreement has done), the Court's limitation on reduction of surface in-Valley supplies will not govern.

ANTONIO ROSSMANN

Attorney at Law

School of Law. Let this writer emphasize that the County is extremely fortunate to have secured Professor Sax's independent opinion, in that he is widely regarded as the leading expert on water resources law in the nation, and an individual whose works have influenced major decisions by the courts in this field. Professor Sax's evaluation is attached to this letter, and in greater detail validates the conclusion that neither the Chandler nor *Hillside* decrees will be violated by Los Angeles' proposed Bishop Cone operations under the water agreement.

If either Professor Sax or this writer can respond to further inquiries from your Board on these questions, we are honored to remain at your service.

Respectfully submitted,



Special Counsel
to the County of Inyo

cc: Water Director Greg James
Professor Joseph L. Sax

JOSEPH L. SAX

850 POWELL STREET
SAN FRANCISCO, CA 94108
TEL: (415)986-3990

July 11, 1991

Antonio Rossmann
380 Hayes Street
San Francisco, California 94102

Re: Opinion Interpreting Chandler Decree¹
and Hillside Decree,²

Dear Tony,

You have asked me to review the decrees cited above along with certain documentary background material you have provided and, based on an interpretation of those documents and of California water law,³ to provide you a legal opinion in response to the following questions:

1. Is Los Angeles obliged to use the prior appropriation surface water rights it owns in Bishop Creek solely on its lands in the Bishop area?

Answer: No.

2. May Los Angeles extract groundwater from beneath its lands overlying the Bishop Cone?

Answer: Yes.

3. If the answer to question 2 is "yes", what limits are there on the amount of water that may be so extracted?

Answer: The amount of water it extracts may not exceed the amount consumptively used (use includes transmission losses) on the overlying

¹ Final Decree in *Hillside Water Co. v. Trickey*, B-61 Equity, U.S. Dist. Ct., S.D., California, N.Div. (Apr. 14, 1922).

² Judgment, *Hillside Water Co. v. City of Los Angeles*, No. 3073 et al, Superior Ct., Inyo Co., California (Aug. 26, 1940).

³ Nothing in this opinion speaks to other issues, under environmental or other laws. The opinion is limited to the rights of Los Angeles as a matter of water law, and under the cited decrees.

I have not been provided with pleadings in the case leading up to the Chandler decree. I have no reason to think there is anything in such materials that would modify the opinion I have given you, but I cannot provide assurance on that point.

land. Los Angeles may not extract groundwater for the purpose of transporting it out of the Bishop Cone area.

4. Is Los Angeles obliged to use its surface water rights in Bishop Creek to maintain at capacity its ditches used for irrigation of land overlying Bishop Cone?

Answer: No.

Background and Circumstances Giving Rise To This Inquiry

Los Angeles is the owner of two sources of water in the Bishop Cone area relevant to this inquiry: (1) It owns prior appropriation surface water rights in Bishop Creek, as successor in interest to pre-1914 rights decreed on April 14, 1922, in the so-called Chandler decree; (2) It owns rights in percolating ground water underlying the Bishop Cone as a consequence of its ownership of overlying land, decreed on August 26, 1940 in the so-called Hillside decree. The terms of the Hillside decree reflect a settlement by the parties following a decision in the case by the California Supreme Court, and a remand back to the Superior Court of Inyo County.

In 1930 and 1931 Los Angeles extracted groundwater from the Bishop Cone for the purpose of export to Los Angeles. But this export of groundwater was challenged, and in the 1940 Hillside decree Los Angeles agreed not to pump any Bishop Cone groundwater for export. On this last point there is no dispute: All agree that under the Hillside decree Los Angeles is prohibited from pumping groundwater from Bishop Cone for export.

Los Angeles owns and irrigates lands in the Bishop area. It has used both groundwater and surface water to irrigate these lands. Recently, Los Angeles has proposed to increase extraction of groundwater from the Bishop Cone underlying its lands to irrigate lands that it owns on the Cone. It has proposed to increase these groundwater extractions in any given year to an amount which will not exceed the amount of water used to irrigate these lands during that year. To the extent that the use of this groundwater for irrigation replaces surface water used for such purposes, it has proposed to transfer the use of its surface water rights in Bishop Creek to be used in Los Angeles (some of these water rights previously have been transferred to Los Angeles and used there, reportedly as early as 1922). The proposed agreement between Inyo County and Los Angeles would, among other things, not prohibit implementation of this proposal.

The essence of the questions you have posed to me is whether Los Angeles' plan, as just described, is lawful under the terms of the Chandler and Hillside decrees.

The Four Questions

1. *Is Los Angeles obliged to use the prior appropriation surface water rights it owns in Bishop Creek solely on its lands in the Bishop area?*

No, it has no such obligation. California water law permits surface water rights to be moved from one place of diversion and use to another place, and to another type of use, so long as other water users are not injured. Thus, subject to the no-injury rule, Los Angeles was and is perfectly free to cease using its surface water rights to irrigate its lands in Inyo County and to transfer them to municipal use in L.A. Since the rights are pre-1914 appropriative rights, under Water Code § 1706 no permit is required for such a transfer.

Nothing in the Chandler decree bars Los Angeles, as successor to the defendants there, from making a transfer of its surface water rights from land in Inyo County to another use in another place. The Chandler decree evidences no such intention to restrict transfers. It distributed the water among different claimants above and below power plant #6; it did not limit the uses the defendants could make of the water allocated to them. The language of ¶ I of the Decree is not to the contrary. The statement that the defendants "own the prior right to appropriate...for the purposes of irrigation...*on said lands*" [emphasis added] does not limit the defendants or their successors to uses on that land.

Legally, appropriative rights are described by their present use (e.g., on a particular tract of land) because appropriative rights may only be held for application to a present beneficial use. Such rights may not be held in gross, i.e., without some present use for a particular purpose in a particular place. That is why the then-present use (on a described land area) is specified in the decree. California law expressly requires such specification in various circumstances. For example, Water Code § 1701, in describing transfer procedures, speaks of the "place of use...specified in the application, permit or license", making clear that the land on which water is planned to be used when the permit is granted is always to be identified in the permit. Similarly, the law providing for statutory adjudications, Water Code § 2769, expressly requires that decrees shall "declare the specific tracts of land to which [the water right] is appurtenant". Decrees routinely and uniformly describe the lands on which the water may be used, as the Chandler decree does. Such designation does not constrain the appropriator from changing the place of use or purpose of use, and §§ 1700 et seq. of the Water Code explicitly authorize such changes to be made. This is necessarily the case, since such transferability of a water right from one place to another is what primarily distinguishes an appropriative right, which is what the defendants have under the Chandler decree (¶ I), from a riparian right, under which a water right may not be moved from the specific tract of land to which it is riparian.

Specification such as one finds in the Chandler decree, then, is standard practice in describing appropriative water rights and does not limit an appropriator's right to change the place of use or the nature of the use. Thus, Los Angeles, like any other appropriator exercising pre-1914 water rights, is free to transfer its use from the "said lands" described in the Chandler decree to other lands, or from irrigation to municipal use, so long as there is no injury to other appropriators resulting from the transfer.

Finally, even if there were some question about the meaning of the Chandler decree (and I do not believe there is), the fact that Los Angeles has been exporting some of its surface water for many decades, apparently without any judicial challenge to that use as a violation of the decree, itself strongly reinforces the view that such exports are consistent with the intent of the decree.

2. May Los Angeles extract groundwater from beneath its lands overlying the Bishop Cone?

Yes, it may. ¶ XI of the Hillside decree says in so many words that "that nothing in this judgment ... shall in any manner enjoin, prohibit, or restrain the defendants ... from pumping, extracting, taking, or using any such water as may be reasonably necessary for beneficial use upon any lands belonging to the defendants...and located within said [Bishop Cone] area . . ." This provision expressly permits Los Angeles to pump Bishop Cone groundwater for uses on its overlying land. In the original trial of the case back in the 1930's, the trial judge enjoined all groundwater pumping by Los Angeles so that the underground water table would be maintained in its natural state. But this ruling was specifically reversed by the California Supreme Court in *Hillside Water Co. v. Los Angeles*, 10 Cal.2d 677, 685 (1938). No such injunction against all pumping appears in the 1940 Hillside decree which is presently in effect, and any such restraint would have been contrary to the legal ruling of the Supreme Court. As noted above, pumping for use on overlying land explicitly is permitted. The only restriction in the Hillside decree is a prohibition on pumping ground water for transport out of the Bishop Cone area (¶ XI).

3. If the answer to question 2 is "yes", what limits are there on the amount of water that may be so extracted?

The only limit on Los Angeles' pumping for beneficial use on its overlying land is that the amount of groundwater it extracts may not exceed the amount actually used (use includes transmission losses) on the overlying land. The standard, set out in the Hillside decree in ¶ XI, is "water...reasonably necessary for beneficial use upon any lands belonging to the defendants." This is simply another way of saying that Los Angeles may pump the amount of water needed to meet the needs of its overlying land, and actually used for that purpose, but no more than that. Los Angeles may not evade the restriction on export imposed by the Hillside decree either by pumping groundwater that is not in fact used on overlying lands, or by pumping more water than is needed for use on overlying land, letting the excess flow downstream and ultimately into Los Angeles' aqueduct. This limitation is expressly acknowledged in the proposed agreement:

The Department's annual groundwater extractions from the Cone shall be limited to an amount not greater than the total amount of water used on Los Angeles-owned lands on the Cone during that year.
Annual groundwater extractions by the Department shall be the total

of all groundwater pumped by the Department on the Cone, plus the amount of artesian water that flowed out of the casing of uncapped wells on the Cone during that year. Water used on Los Angeles-owned lands on the Cone shall be the quantity of water supplied to such lands, including conveyance losses, less any return to the aqueduct system. (Draft Environmental Impact Report, 5-16).

It should be noted that this interpretation limiting groundwater pumping to water consumptively used on overlying lands avoids any possible problems from the physical commingling of surface and pumped water as they are moving through the area. Since the total amount of water that can be pumped is guaranteed to be used consumptively on overlying lands, no water in excess of the amount permissible for pumping will occur. And since all surface water may be exported, there is no possibility of more water being exported than may be exported legally. The only 'problem' with commingling is that of the total of surface and ground water, there is no guarantee that the particular molecules of water taken from the ground will be used on overlying land, while particular molecules of water from Bishop Creek will be delivered to Los Angeles. Any such mixing is of no consequence legally. So long as the correct amounts are taken from each source for correct purposes, it is legally inconsequential (assuming no provable detrimental change in quality) that the actual molecules of water from each of the separate sources are exchanged and switched in actual use.

The fact that at the time of the decree Los Angeles did not rely on groundwater for meeting the needs of its overlying lands does not diminish its right to use the water for that purpose now. Neither the Hillside decree nor California water law limits Los Angeles' use of groundwater to earlier uses or to use only as a supplemental supply (i.e. to use only of amounts that cannot be supplied by its surface water rights). There is no suggestion anywhere in the pleadings of the Hillside case to suggest that Los Angeles' overlying uses were to be so limited, and there is no such limit imposed by the 1940 decree.

4. Is Los Angeles obliged to use its surface water rights in Bishop Creek to maintain at capacity its ditches used for irrigation of land overlying Bishop Cone?

No, it is not. This claim is apparently another version of the claim that Los Angeles is obliged to use its surface water rights for irrigation of its overlying lands on the Bishop Cone. This suggested interpretation presumably is drawn from language in ¶ XI of the Hillside decree stating that "nothing in this judgment contained shall in any manner enjoin, prohibit, or restrain the defendants ... from maintaining or operating their presently existing drainage ditches to the full extent of their present normal capacity." There is apparently some suggestion that this language should be read to *require* defendant (Los Angeles) to maintain its irrigation ditches, which carry surface water from Bishop Creek, at full capacity, i.e. to use their surface water rights to irrigate the lands overlying Bishop Cone.

Such an interpretation is entirely implausible. The drainage ditches referred to in ¶ XI are not irrigation ditches. Early pleadings in the case make clear that drainage ditches are something entirely different. They are drains that intercept underground water at the lower edge of the cone as it reappears on the surface. See Memorandum of Decision and Order for Findings, Feb. 6, 1934, at pp. 9, 19. The court notes at p. 19 that "as hereinbefore pointed out, the bulk of the average annual absorption or replenishment to the underground water occurring in the Bishop cone finds its way to the surface in the vicinity of the A and C Drains of the defendants where it is intercepted and diverted to the surface supply. This use of these waters should not be enjoined." The "drainage ditches" referred to above in ¶ XI are not irrigation ditches; they are the "drains" that catch water coming to the surface and carry it back into the surface supply.

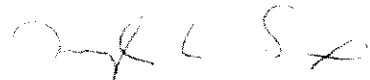
In addition, the language of the decree is permissive, not mandatory. It does not require defendants to manage the ditches referred to in any particular way.

Conclusion

Los Angeles, which holds surface water appropriative rights in Bishop Creek under the 1922 Chandler decree, and ground water rights in Bishop Cone under the 1940 Hillside decree, may export its surface water rights for municipal use in Los Angeles, and may use its groundwater rights upon land it owns overlying Bishop Cone.

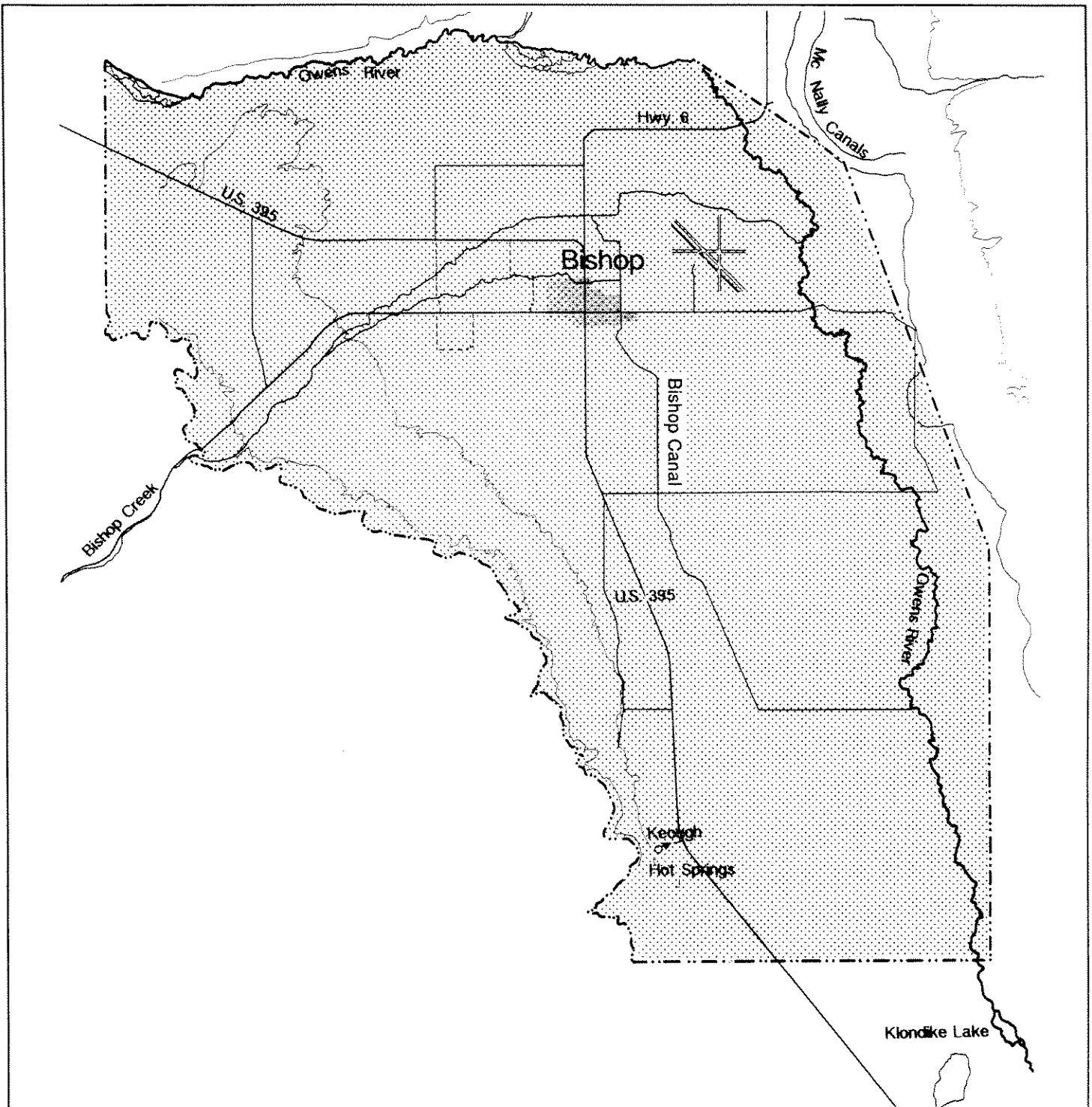
If you have any questions about items in this opinion, please don't hesitate to call.

Cordially yours,



Joseph L. Sax*

* Information about consultant: Joseph L. Sax is the James H. House and Hiram H. Hurd Professor of Environmental Regulation at the University of California, Berkeley. He specializes in water law which he has taught for nearly thirty years at Berkeley, Stanford, and the Universities of Michigan, Colorado and Utah. He is the author of numerous articles and books on water law, including the most widely used law student book on the subject, *Legal Control of Water Resources* (1985, 2nd edition, 1991, with Abrams and Thompson); *Water Law Planning and Policy* (1967); and *Water Law* (1965). He is a co-author of the multi-volume treatise *Waters and Water Rights*. He has served as a consultant to federal and state government on water law issues and has often been a featured speaker on water law issues for the American Bar Association. He has consulted for the National Research Council, as well as running training programs for government attorneys. He has written over one hundred articles in scholarly journals.



O W E N S V A L L E Y

FIGURE A4-1
BISHOP CONE BOUNDARY

 Bishop Cone Boundary

SOURCE: INYO COUNTY WATER DEPARTMENT



Appendix B

Vegetation



APPENDIX B-1 LADWP GRAZING MANAGEMENT PROGRAM

The following information, which is provided in addition to that presented in the Draft EIR, describes how this program has been and will continue to be implemented.

Land Management

The proposed project includes provisions that would protect vegetation in the Owens Valley from the effects of groundwater pumping, changes in surface water management practices, or related activities. Grazing management is not a part of the proposed project. However, it is recognized that vegetation is affected not only by water management but also by various land management activities, including public uses and livestock grazing. Vegetation, therefore, is subject to the combined effects of water management and other activities.

The effects of the Department's agricultural leasing activities on land use and economics are discussed in Chapter 14. The Department's ongoing leasing program is many-faceted with respect to the activities, practices, and procedures in the administration of the City's watershed and range management program. Some of the key elements of the Department's ongoing agricultural land use program are:

1. Mapping of all LADWP lands for:
 - o identification of plant communities by a line-point transect method, documents the vegetation species present, percent cover, and percent composition (see Green Book for inventory procedures);
 - o identification of soil types by the Soil Conservation Service under the guidelines of the National Soils Survey Handbook; this inventory also includes identification of range sites under the guidelines of the National Range Handbook; and

Appendix B-1: LADWP Grazing Management Program

- o locations of rare and endangered species and habitats.
2. Establishment of carrying capacity which is based on annual plant productivity measurements (used in conjunction with range site development).
 3. Documentation of livestock use on Los Angeles lands and conflicts with wildlife involving coordination with individual lessees.
 4. Identification of sensitive areas and developing cooperative grazing practices with individual lessees. This may involve several management options:
 - o Development of grazing strategies;
 - o Additional grazing control-fencing;
 - o Adjustments of supplemental feeding locations;
 - o Adjustments of season-of-use in coordination with Federal grazing allotments;
 - o Development of more efficient irrigation practices; and
 - o Protection of rare and endangered species and critical habitats.
 5. Development and application of appropriate range management practices to maintain and improve available forage by:
 - a. range burning;
 - b. noxious weed control;
 - c. improve irrigation methods; and
 - d. range seeding and fertilization.

Appropriate administrative options exist within the land leasing authority and procedures of the City of Los Angeles under this program to resolve conflicts and make adjustments in land use practices as necessary.

APPENDIX B-2

LETTERS FROM AERIAL PHOTO EXPERTS





RECEIVED
MAR 11 1991

UNIVERSITY OF NEVADA-RENO Co. Water Department

Department of Range, Wildlife and Forestry
Renewable Resources Center
College of Agriculture
University of Nevada-Reno
1000 Valley Road
Reno, Nevada 89512
(702) 784-6763

March 7, 1991

Dr. David P. Groeneveld, Ph.D.
County of Inyo Water Department
163 May Street
Bishop, California 93514

Dear David:

I have examined the 10 aerial photo pairs of parts of Owens Valley that you sent to me on February 14, 1991. The following observations were made.

There are some obvious problems that tend to reduce the interpretability of the photographs. One set of photographs is a high contrast black and white set while the other is a true color set. The 1968 B&W set was obtained during the month of June and the 1990 color set was obtained in the month of september. This of course tends to increase the difficulty of vegetation interpretation. The scale of 1:12,000, based on my experience, is not ideal for the identification and measurement of species and plant community differences.

There are number of differences between the two sets of photographs that are readily observable. Areas of wet soils and wet vegetation with some standing water are considerably more widespread on the 1968 June B&W photographs than on the 1990 September Color photographs. This, of course can be expected because of differences in moisture conditions based on climatic data for the years 1967-68 and 1989-90 and already pointed out by you. Other differences easily observed were land disturbances from road widening, increased road use, new road construction and land clearing for various other reasons including urban and commercial development. On several photos a reduction in tree specimens was noted and, of course, an increase in the size of some trees. These were trees along water courses or drainages although in several cases trees were gone from upland sites.

Next I turned my attention to specific observable or identifiable changes in both the wetland vegetation and the terrestrial upland vegetation. Upland in the sense that these sites are generally above the floodplain and dry for the greater part of year with the exception of times just after rainfall events or in the spring when

soil moisture is abundant. In most cases the boundaries between what are obviously lowland wet areas and upland terrestrial plant communities appears to have changed very little especially if you take into account the difference in moisture conditions between the two years for which aerial photographs are available. I examined the photographs at both 2x power and 7x power. With the 2x power hand lens one can make estimates of differences based on a general synoptic observation of the same site on the two sets of photographs. At 7x magnification one can identify individual specimens and count them on both sets of photographs. It is also possible to observe size differences among the woody plants. In several cases with 7x magnification I was able to observe both density (individual specimens per unit area) differences and size of shrub differences for the same sites on the photo pairs.

I made some preliminary counts and found differences between the two years. The size differences that I observed among the shrubs may be related to either a reduction in plant vigor or to species differences. It is very difficult to identify shrub species. With careful further examination of shrub size and shape coupled with ground checking it may be possible to identify several of the shrubs as to species. I think that with proper magnification and careful subsampling one can make some objective measures of both shrub density and shrub size to compare between the two years. Also there is reasonable feasibility of making measures of shrub cover on comparison sites.

There is little feasibility of using these photographs to measure changes in the herbaceous or understory species composition, cover or vigor for the same sites on the comparison photographs. The resolution is not adequate. If detailed measurements were made of woody species on the photographs, including density, cover and relative plant size and shape, then it might be possible to make some inferential statements about the understory component particularly for the upland sites. This can only be accomplished with considerable ground experience and even then the results might be rather disappointing.

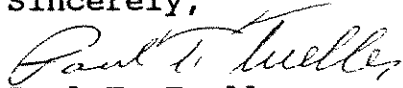
On the other hand, there is reasonable feasibility of making quantitative measures of woody plant density and relative size. With a reasonable amount of ground experience it might be possible to use relative size and shape of magnified specimens to identify species of woody plants. This would be particularly important on the 1968 photographs. Contemporary ground sampling would serve to verify species identification for the 1990 photographs. Such quantitative determinations could be made and the significance of differences or lack thereof determined for subsamples on the photo pairs. Woody plant cover might also be accomplished although with somewhat greater difficulty. Interpretations, both qualitative and quantitative, must be carefully supplemented with good ground experience by visiting a variety of sites in the field before any quantitative measurements are made on the photographs. It also may

page 3

be necessary to have certain subscenes of the photo pairs enlarged before making any quantitative measurements. Such a project will require careful design and interpretation in order to insure objectivity.

I hope that these observations will be useful to you. Please give me a call if you have any questions.

Sincerely,



Paul T. Tueller
Professor of Range Ecology

1300 Juanita Drive
Walnut Creek, CA 94595
8 March, 1991

R E C E I V E D
MAR 22 1991

Dr. David P. Groeneveld,
County of Inyo, Water Department
163 Main Street, Bishop CA 93514

Inyo Co. Water Department

Dear David:

Awhile ago, in my telephone conversation with you, I said I would be writing this letter to you in the middle of next week and sending it to your home via "fax". Then I found that the church report on which I am scheduled to work during the next few days cannot be written until a few more key items of basic data are made available to me. Hence I'm writing you now so that this letter, with certain enclosures that would not "fax" too well anyway, can travel to you over the weekend, via the regular mail service.

As indicated in your February 21 letter to me, the basic question to be answered soon pertains to whether or not vegetation can be accurately mapped throughout the Owens Valley Area in terms of species (or life-form) composition and density, using the available 1968 and 1990 aerial photos (in black-and-white and color, respectively, scale 1/12,000) and in so doing to show changes that have occurred during the interim. At the risk of repeating some of the comments that I have just made to you in our recent telephone conversation, here is my multi-part answer:

(1) It would be an unusual photo interpreter, indeed, who could do this if aided only by the information that I now have at hand. So under those circumstances my short answer would have to be "No".

(2) Using the techniques and procedures that I am about to describe, however, a photo interpreter could do a sufficiently better job that, in terms of your objectives, my answer should be "Yes"--even though dedicated critics probably could single out occasional classification errors.

In developing and implementing the proper techniques and procedures, one experienced and highly respected photo interpreter should be the key follow-

through man from start to finish. Because of my limited availability, I am not that man. Even so, I believe that I could be of great help to that man--(let's call him "Man X"); (1) In getting the project off to the right start; (2) in helping to provide "quality control" during the project; and (3) at the end of the project, in lending whatever prestige I may have for doing work of this kind by commenting favorably on the correctness of the procedure that had been used and the accuracy of the results that had been achieved. Whether my playing such a role would be of enough overall benefit to justify my participation on the project presumably would be for you to decide, David.

Among the few individuals known to me who might adequately serve as "Man X", subject to being available for the rather sizable effort that would be required are (1) Paul Tueller, and (2) a highly competent photo interpreter here in the Bay Area--a fellow of about my age who recently retired having spent virtually his entire professional career in the mapping of California wildland vegetation (both timber and shrubs) in his capacity as a prime mover in the highly regarded "California Vegetation/Soils Survey".

Procedural steps in doing the kind of study that I would recommend are roughly as follows (assuming my limited participation as described above):

1. "Man X" plus you and I, David, would spend a day or two together "on-site" at preselected spots in the Owens Valley with the 1968 and 1990 aerial photos in hand. Together we would visit each such spot and, based on our ground observations, would record the species composition (or "life form") and the vegetation density. At each site we would also take stereo pairs of on-the-ground 35mm color photos, in each instance indicating on the corresponding aerial photos the on-the-ground camera station and direction in which the camera had been pointed. In my rather extensive experience at this kind of work, this provides photo interpretation trainees, later hired to work on the project, essentially the same information about the area as they would gain if they were

to make a field trip to the area. As for the specific sites that the 3 of us would visit during this field trip, emphasis would be placed on those that would be most informative in relation to the objectives of the study (e.g. areas where there is a high water table) together with areas most likely to be confused with them by a photo interpreter.

2. "Man X" would then prepare a rather simple and straightforward photo-interpretation "key", primarily for later use by the various photo interpreters who soon would be hired to do the basic photo interpretation work. As in the other keys that I have prepared and used successfully, this key would consist of a series of examples. Each example, in turn, would consist of (1) a stereogram of the 1968 black-and-white photos, within which the example was centered; (2) a similar stereogram of the 1990 photos (on both the 1968 and 1990 stereograms an arrow would be emplaced in such a way as to indicate the location and orientation of the ground shot); (3) the ground shot (or ground shots, in some instances) also mounted in stereogram form; (4) a description of the area with emphasis on the vegetation composition and density, and the aerial photo image characteristics of value in identifying it; and (5) reference to a dichotomous (two-branched) key, elsewhere in the compendium, in which the identifying photo image characteristics of each vegetation type included in the key were systematically set forth.

3. Based on the above, "Man X" would devise the overall classification scheme that all photo interpreters would use when working on the project. This would include (a) the various vegetation classes to be used, and the code letter to be assigned to each and used when annotating interpreted portions of the aerial photos; (b) similar information with respect to the vegetation density ratings to be employed (perhaps with density "scales" showing how density classes (1,2,3,4, and 5, for example) look on 1/12,000-scale aerial photographs.

4. "Man X" would select and train (in suitable office space which by that time he would have acquired) the few photo interpreters who, collectively, would do the bulk of the photo interpretation work on the project. Care would be taken to ensure that each photo interpreter was interpreting the photos accurately, and that all of them were annotating the photos with the same legible and previously agreed^d-upon letters and symbols. This would ensure the validity of later "pooling" those results so that "variation in photo interpreters" would constitute a negligible source of error. If, for example there was to be a complete delineation of all vegetation/density attributes within the "effective area" of all photos (or of selected stereo pairs) then it would be important to include, in the specifications given to the various photo interpreters, instruction as to the "minimum area" (e.g. 10 acres or 40 acres) meriting its own classification.) A sampling scheme also would have been devised for use here.

5. Throughout the photo interpretation process, "Man X" would supervise closely enough to ensure adequate "quality control"

6. "Man X" would ensure that adequate field checking was done, both during and at the completion of the project so that "temporal comparisons" or "Change Detection" could be adequately accomplished and reported on.

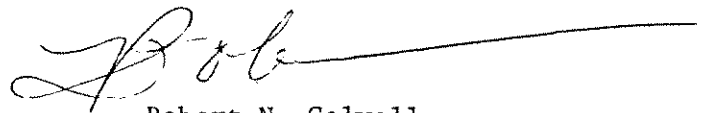
7. Among the final display products would be 35 mm slides paired in such a way that for each of several ¹²sected areas the audience being briefed could see, side-by-side as projected on a screen, a greatly enlarged portion of a 1968 aerial photo and the corresponding area on the 1990 photo. The accompanying narration would highlight the changes in vegetation composition and vegetation density applicable to each such paired-photo example. In most instances the matching 1991 ground shot of the area also could be shown in slide form.

David, while more detail could be given, I hope this will suffice for now and permit you to react to the general procedure that I suggest might be used.

Enclosed please find two overlapping biosketches about me--one pertaining primarily to my civil activities that relate largely to photo interpretation and the other, likewise, but with emphasis on my military activities.

Also enclosed is a copy of the recently completed "Supplemental Agreement" under which I currently am working on the Love Canal Litigation Project. I thought you might be interested in the fact that the photo interpretation work that I have been performing on this project in my capacity as the photo interpretation expert for both the State of New York and the federal government entails mapping vegetation changes from multirate aerial photos in a fashion that is remarkably similar to what you may want done for the Owens Valley area.

Sincerely,



Robert N. Colwell

P.S. I'm very enthusiastic for this project. I keep returning to the aerial photos that you sent me and studying a few more examples from the annotated areas. Ever so, let me know, David, if I should return the photos to you promptly and I'll do so.

SUPPLEMENTAL AGREEMENT NO. 3

This Supplemental Agreement No. 3 amends the Original Agreement made by and between the State of New York Department of Law and Dr. Robert Colwell, Contract No. S100171, in regards to compensation and term of said Agreement, which shall hereby read as follows:

In consideration, thereof, Dr. Colwell shall receive compensation at the rate of ONE THOUSAND DOLLARS (\$1000) per eight (8) hour day. Also included in this matter are any incurred expenses, including travel and lodging, which will be reimbursed at State rates when accompanied with receipts, with the approval of the Department of Law. The maximum amount of this Agreement shall read ONE HUNDRED AND TWENTY THOUSAND DOLLARS (\$120,000) based on vouchers submitted for work done with the approval of the Department of Law. The maximum amount of this Agreement is subject to increase or decrease by a Supplemental Agreement, with the approval of the Department of Law.

The term of said Agreement shall commence on August 8, 1983, and terminate on March 31, 1992.

All other aspects of the Original Agreement shall remain unchanged and binding.

APPROVED AS TO FORM
NEW YORK STATE
ATTORNEY GENERAL

DEC 11 1990

STEPHEN J. HANDEL
ASSOCIATE ATTORNEY

Stephen Handel

Robert J. Colwell 11/23/90
DR. ROBERT COLWELL DATED

R. Alexander 12/7/90

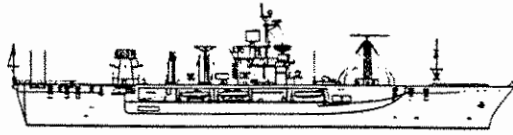
NYS DEPARTMENT OF LAW DATED

JAN - 4 1991

APPROVED

19

[Signature]
FOR THE STATE COMPTROLLER



REAR ADMIRAL ROBERT N. COLWELL
UNITED STATES NAVAL RESERVE (RET.)
PAST DIRECTOR, NAVAL RESERVE INTELLIGENCE PROGRAM



The

ASP/ACSM Fall Tec

Dr. Robert Colwell Will Set Keynote



Dr. Robert Colwell

Dr. Robert N. Colwell, Editor-in-Chief of the prize-winning **MANUAL OF PHOTOGRAPHIC INTERPRETATION** of ASP (1960), and also of ASP's recently published **MANUAL OF REMOTE SENSING -- Second Edition** (1983) will be the Keynote Speaker for the 50th Anniversary ASP Fall Technical Meeting in San Antonio.

Robert N. Colwell received his BS degree in Forestry in 1938 and his PhD degree in Plant Physiology in 1942, both from the University of California. Some of his earliest experiences in using aerial photos took place nearly 50 years ago, as he used them to locate previously unmapped lakes in the "boondocks" of Idaho. Finding many such lakes to be barren, but ideally suited to the production of trout, he backpacked trout to them, using aerial photos as an aid in route selection.

Among Bob's military experiences in the use of aerial photos were (1) as an Air Combat Intelligence Officer for the Guadalcanal campaign in 1942 (2) as Chief of Photo Intelligence for the Okinawa Campaign in 1945, and (3) as Director of the Navy's Photo Interpretation and Research Programs, in 1946 and 1952, respectively. From 1974-1977 Rear Admiral Colwell served as the first Director of the Naval Reserve Intelligence Program, officially termed "the largest program in the entire Naval Reserve" with 150 units and nearly 3000 officers doing photo-related work throughout the world.

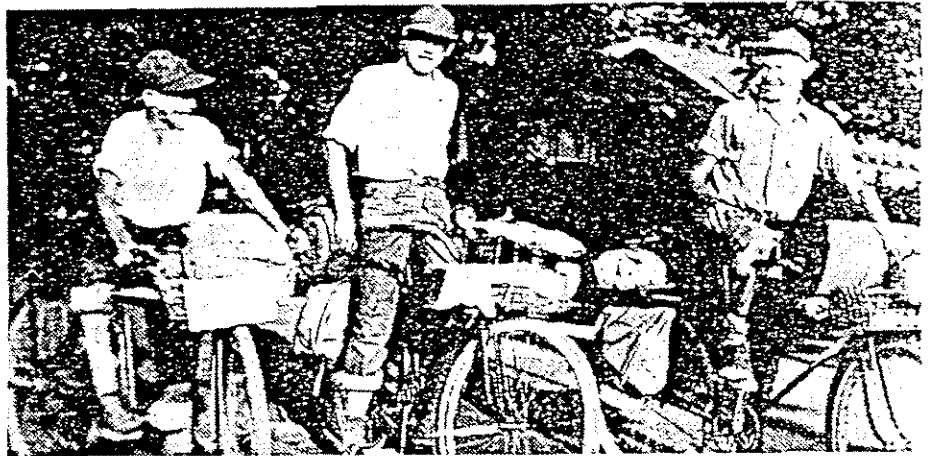
In his concurrent civilian career, for the past 36 years Dr. Colwell has been a Professor of Forestry (Remote Sensing) on the Berkeley campus of the University of California, and for the past 13 years, Associate Director of the University's Space Sciences Laboratory.

Dr. Colwell has published nearly 400 articles dealing with various aspects of photo interpretation, photogrammetry, and remote sensing. Among the ASP

Awards he has received are the Fairchild and Abrams Awards, the FMA Photo Interpretation Award, the Alan Gordon Memorial Award, and Honorary Life Membership. He has also received the joint NASA/USDI "Pecora Award" in remote sensing and has served as a "Distinguished Lecturer" for ASP as well as for the Society of American Foresters and the Society of the Sigma Xi.

In his keynote address, entitled "The Remote Sensing Picture in 1984," Dr. Colwell will briefly present his perception of where we have been, where we now are, and where we are likely to go in the future - all with respect to photogrammetry, photo interpretation, and remote sensing.

sensing to the real tasks users of the



When ASP asked for photos of prominent ASP members taken in 1934, the year of the Society's founding, to use as a part of the 50th Anniversary celebration, Dr. Bob Colwell sent this one. Dr. Colwell, right, an intrepid 16 year old adventurer, and his 1 year old brother Bert (left) and 17 year old brother Harold (center) were photographed in Turlock, California, on their trip from their home town of Temipton, CA to Idaho and back.



Fifty years later, the three Colwell brothers posed for this photo, taken in the same spot, the brothers occupying the same positions. The bike Dr. Colwell is riding is the same one he pedaled to Idaho in 1934; he still rides it often.

FAX to: 619 - 873-5695

ecosat geobotanical surveys inc.4455 Ruskin Place, North Vancouver, B.C. V7R 3P7 Phone 980-8840
FAX 604-681-6637

April 18, 1991

Dr. David Groeneveld
 Inyo County Water Dept.
 163 May Street
 Bishop, California 93514

Dear David:

I have received your letters you sent to Drs. Colwell and Tueller and their responses to your inquiries about interpretation of 1968 and 1990 aerial photography of the Owens Valley. I will provide my professional views on these results as you have requested.

Both Dr. Colwell and Dr. Tueller are acquaintances of mine; I worked with Dr. Colwell from 1973-74 and have met Dr. Tueller at the University, professional remote sensing and rangeland society meetings over the past 20 years. They both represent the highest in qualifications and integrity the profession has to offer.

Dr. Colwell's major finding that detailed ground truth data are required for accurate and complete interpretation of both image data sets is correct. Dr. Tueller has provided you with some interpretability statements regarding both sets of photography. All of his observations I agree with fully. His statements regarding the quantitative measurements of shrubs are correct for both sets of photography and important for your intended purposes of detecting major changes throughout the Owens Valley. While it is generally true that it is "very difficult to identify shrub species" as Dr. Tueller states, my field experience in the Valley indicates that some relatively accurate (i.e. 75-80% accuracy) photointerpretative species designations could be made on both sets of photography, if desired. They would be based upon observable crown size, shape, tone, texture and color differences between species. (Though this is a difficult task, it could be accomplished with the ground truth information such as I collected in 1973-74 and 1990.)

Dr. Tueller's statement regarding feasibility of measuring changes in herbaceous composition, cover or vigor needs elaboration. While the resolving power of either set of aerial photography is inadequate to identify individual grass or grass-like plants, either set could be used to measure cover classes using ecological cover classes such as the modified Domin scale. This was done in my Technical Memorandum to E.I.P. Assoc. Ltd. (8 June 1990, 47pp.) using the 145 sites studied by Lee (1912). Using little of my 1973-74 ground truth data and with little time to accomplish the task, I interpreted herbaceous vegetation cover in roughly the following classes: 0-3%, 4-8%, 9-15%, 16-30%, 31-65% and greater than 65%. These cover classes can be interpreted with proper ground truth data on both sets of photography. A good evaluation of this fact can be made using the 73 sites of Lee's which possess less than 8% shrub cover. The "understory" herbaceous cover is evident on the aerial photos. In many cases, species composition can be interpreted as well as cover. Image characteristic differences between species along with biophysical inferential data can be used to interpret species composition differences of herbaceous vegetation. The factors Dr. Tueller itemized which complicate the interpretation and correlation of both sets of aerial photographs must be properly taken into account in this interpretive process. Herbaceous plant vigor has not been addressed by myself since its measurement is not central to answering the questions needed as is plant cover and composition. In addition, vigor is much more difficult to quantify and interpret

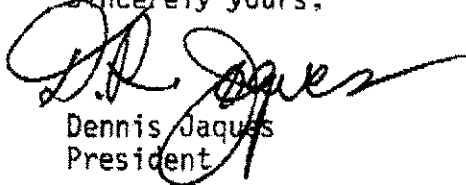
(18 April 1991, Dr. David Groeneveld, p.2)

consistently between the two dates and types of aerial photography.

My experience and past work indicates that it is feasible to do high quality, professional aerial photo interpretation, using largely existing ground truth information, to provide the comparison of pre-project conditions with current vegetation conditions. I would recommend that a team consisting of myself and one (possibly two) L.A. Dept. of Water & Power personnel be commissioned to work together to interpret 1968 as well as 1981 and/or 1990 aerial photography. This should be done at least for representative transects carefully selected throughout the entire Valley. The work should be accomplished using dual Zeiss interpretaskope instruments so that the parties can simultaneously interpret the identical stereo pairs and thus combine expertise to eliminate interpretive errors as much as feasible. The interpretive work would best be conducted in Bishop, but could be done in any of a number of other locations. The work would require 5-6 weeks and should culminate in a short, well illustrated final report and maps jointly authored by those conducting the interpretive work.

Let me know if you would like clarification or elaboration on any points covered in this letter. I would be happy to be at your service for this work and would be prepared to present a more formal proposal to you and any L.A. City personnel in Bishop or L.A. at your convenience.

Sincerely yours,



Dennis Jaques
President



APPENDIX B-3
UPDATED LIST OF SENSITIVE PLANT SPECIES

Astragalus geyeri A. Gray var. *geyeri* [Fabaceae]

Common Name: Geyer's Milk Vetch

Reference: Mem. N.Y. Bot. Gard. 13:894-895, 1964.

Status: -/-/List 2 (3-2-1) Habit: annual

Habitat: Sagebrush Scrub (sandy valley floors & dunes), 5000 ft.

Counties: Inyo, Mono

Bloom Time: May to August

Notes: Rare in Owens Valley, this may be its most southerly site. More common to the north and east. For description see Munz (1959), page 882.

Astragalus lentiginosus Dougl. var. *piscinensis* Barneby [Fabaceae]

Common Name: Fish Slough Milk Vetch

Reference: Brittonia 29:376-381, 1977, (type description).

Status: C1/-/List 1B (3-3-3) Habit: perennial

Habitat: Meadows (alkaline)

Counties: Inyo, Mono

Bloom Time: May to June

Notes: Very rare. For a description see the original description in Brittonia.

Calochortus excavatus E. L. Greene [Liliaceae]

Common Name: Inyo County Star-tulip

Status: C2/-/List 1B (1-2-3) Habit: perennial

Habitat: Shadscale Scrub (alkaline meadows), 4000-6000 ft.

Counties: Inyo, Mono

Bloom Time: April to May

Notes: Found in the alkaline meadows often of the valley bottom, often with *Sidalcea covillei*. For a description see Munz (1959), page 1352.

Cordylanthus eremicus (Cov. & Mort.) Munz ssp. *eremicus* [Scrophulariaceae]

Common Name: Desert Bird's-beak

Synonym: *Cordylanthus ramosus* ssp. *eremicus*

Reference: Syst. Bot. Monogr. 10:89-92, 1986.

Status: C2/-/List 4 (1-1-3) Habit: perennial

Habitat: Pinyon-Juniper Woodland, Desert Scrub (dry rocky places), 7000 ft.

Counties: Inyo, San Bernardino

Bloom Time: August to October

Notes: Once common around Little Blackrock Spring. See the paper by Chuang and Heckard in Systematic Botany Monographs for current nomenclature. It is also on List 4 in the 1988 CNPS Inventory. For a description see the above reference, also in Munz (1959), page 676 as *C. ramosus*.

Eriogonum ampullaceum J. T. Howell [Polygonaceae]

Common Name: Mono Buckwheat

Synonym: *Eriogonum mohavense* ssp. *ampullaceum*

Status: C2/-/List 1B (1-2-2) Habit: annual

Habitat: Sagebrush Scrub, Alkali Meadows (dry, sandy soil), 4000-7000 ft.

Counties: Inyo, Mono

Bloom Time: July to September

Notes: Often found along roadsides where it receives slightly more moisture. Several known populations between Manzanar and Lone Pine. For a description see the Supplement to Munz (1968), page 55.

Fimbristylis spadicea (L.) Vahl [Cyperaceae]

Common Name: Hot Springs Fimbristylis

Synonym: *Fimbristylis thermalis*

Status: C3c/-/List 2 (2-2-1) Habit: perennial

Habitat: Freshwater Marsh, Meadows (alkaline, near hot springs)

Counties: Inyo, Mono, Kern, San Bernardino

Bloom Time: August to September

Notes: Grows at Fish Slough. For a description see Munz (1959), page 1422.

Loeflingia squarrosa Nutt. ssp. *artemisiarum* Barneby & Twisselmann [Caryophyllaceae]

Common Name: Sage-like Loeflingia

Reference: Madrono 20:398-408, 1970.

Status: C3c/-/List 3 (2-2-2) Habit: annual

Habitat: Grassland, Scrub

Counties: Inyo, Riverside, San Bernardino?

Bloom Time: April to May

Notes: In Owens Valley known only from the stabilized sand dunes north of Big Pine and south of Tinemaha Reservoir. This species is precipitation dependent and may not appear in dry years. There have been questions about the species taxonomic status.

Oryctes nevadensis S. Watson [Solanaceae]

Common Name: Nevada Oryctes

Status: C2/-/List 2 (3-3-2) Habit: annual

Habitat: Alkali Sink (sandy places), 4000-5000 ft.

Counties: Inyo

Bloom Time: May

Notes: A precipitation-dependent annual known from only a few populations in California, all of which are in Owens Valley. Listed as threatened in Nevada. Rejected as a State listed species. For a description see Munz (1959), page 593.

Ranunculus hydrocharoides A. Gray [Ranunculaceae]

Common Name: Frog's-bit Buttercup

Status: -/-/List 2 (2-2-1) Habit: perennial

Habitat: Marshes, Riparian (streambanks)

Counties: Inyo

Bloom Time: July

Notes: Occurs in the Bishop area as well as along the south fork of Oak Creek. Trampling at watering places seems to be the only threat. For a description see Munz (1959), page 99.

Sidalcea covillei E. L. Greene [Malvaceae]

Common Name: Owens Valley Checkerbloom

Reference: Fremontia 5(4):34, 1978; 6(3):26, 1978; 8(4):16, 1981

Status: C2/E/List 1B (2-3-3) Habit: perennial

Habitat: Meadows (alkaline)

Counties: Inyo

Bloom Time: May to June

Notes: Known only from Owens Valley from Olancho to Round Valley. Grazing and lowered water tables pose the greatest threats. For a description see Munz (1959), page 136. A status report is available from the CNPS.

Astragalus argophyllus Nutt. var. *argophyllus*

Common Name: Silverleaf milk-vetch

CNPS List: 2 R-E-D Code: 3-1-1

State/Federal Status: None

Habitat: Alkaline meadows

Counties: Inyo, Mono

Notes: Occurs at Fish Slough and springs to the east of Chalfant Valley

Ivesia kingii Wats.

Common Name: Ash Meadows mousetails

CNPS List: 1B R-E-D Code: 3-1-2

State/Federal Status: None

Habitat: Alkaline meadows

Counties: Inyo, Mono

Notes: Occurs at Fish Slough, Long Valley and Adobe Valley

STATUS = Federal/State/Other (R-E-D codes)

Federal Status Codes

E = Listed as endangered

T = Listed as threatened

C1 = Candidate for listing and enough data is on file to support federal listing

C2 = Candidate for listing but threat or distribution data is insufficient to support listing at this time

C3a = Extinct

C3b = Taxonomically invalid

C3c = Too widespread or not threatened

State of California Status Codes

E = Endangered
 T = Threatened
 R = Rare
 C = Candidate for listing

Other CodesPlants: California Native Plant Society Inventory Lists

List 1A = Presumed extinct
 List 1B = Plants rare in California and elsewhere
 List 2 = Plants rare in California but more common elsewhere
 List 3 = Plants about which more information is needed - a review list
 List 4 = Plants with limited distributions - a watch list

R-E-D Codes: California Native Plant Society Inventory

R = Rarity
 1 - Rare, but potential for extinction is low
 2 - Confined to several populations or one extended population
 3 - Limited to one or a few highly restricted populations

E = Endangerment
 1 - Not endangered
 2 - Endangered in a portion of its range
 3 - Endangered throughout its range

D = Distribution
 1 - More or less widespread outside California
 2 - Rare outside California
 3 - Endemic to California

Animals and Misc:

CSC = California Department of Fish and Game "Species of Special Concern"
 FSS = Bureau of Land Management and U. S. Forest "Sensitive Species"

- * = Taxa listed with an asterisk fall into one or more of the following categories:
- o Taxa considered endangered or rare under Section 15380(d) of CEQA guidelines.
 - o Taxa that are biologically rare, very restricted in distribution, or declining throughout their range.
 - o Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation in California.
 - o Taxa closely associated with habitat that is declining in California (e.g. wetlands, riparian, old growth forest, desert aquatic systems, native grasslands.)

APPENDIX B-4
UPDATED PLANT LISTS

BY SCIENTIFIC NAME

<i>Agropyron intermedium</i>	Wheatgrass
<i>Allenrolfea occidentalis</i>	Iodine Bush
<i>Ambrosia dumosa</i>	Burro Weed, White Bur Sage
<i>Amelanchier utahensis</i> ssp. <i>covillei</i>	Serviceberry
<i>Amsinckia</i> sp.	Fiddleneck
<i>Anemopsis californica</i>	Yerba Mansa
<i>Artemisia spinescens</i>	Bud-sage
<i>Artemisia tridentata</i> ssp. <i>tridentata</i>	Big Sagebrush
<i>Astragalus geyeri</i> var. <i>geyeri</i>	Geyer's Milk Vetch
<i>Astragalus lentiginosus</i> var. <i>piscinensis</i>	Fish Slough Milk Vetch
<i>Atriplex canescens</i>	Fourwing Saltbush
<i>Atriplex parryi</i>	Parry's Saltbush
<i>Atriplex polycarpa</i>	Allscale
<i>Atriplex torreyi</i>	Nevada Saltbush
<i>Bassia hyssopifolia</i>	Bassia
<i>Bromus</i> sp.	Brome Grass
<i>Calochortus excavatus</i>	Inyo County Star-Tulip
<i>Carex</i> sp.	Sedge
<i>Celtis reticulata</i>	Western Hackberry
<i>Ceratoides lanata</i>	Winter Fat
<i>Chrysothamnus nauseosus</i> ssp. <i>consimilis</i>	Rubber Rabbitbrush
<i>Chrysothamnus teretifolius</i>	Terete-leaved Rabbitbrush
<i>Coleogyne ramosissima</i>	Blackbush
<i>Cordylanthus eremicus</i> ssp. <i>eremicus</i>	Desert Bird's-beak
<i>Cynodon dactylon</i>	Bermuda Grass
<i>Distichlis spicata</i> var. <i>stricta</i>	Inland Saltgrass
<i>Eleocharis</i> sp.	Spike-rush
<i>Ephedra nevadensis</i>	Nevada Ephedra
<i>Ephedra</i> sp.	Mormon Tea
<i>Eriogonum ampullaceum</i>	Mono Buckwheat
<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	California Buckwheat
<i>Erodium</i> sp.	Filaree, Stork's-bill
<i>Festuca arundinacea</i>	Meadow Fescue
<i>Fimbristylis spadicea</i>	Hot Springs Fimbristylis

<i>Glycyrrhiza lepidota</i>	Wild Licorice
<i>Grayia spinosa</i>	Hopsage
<i>Helianthus</i> sp.	Sunflower
<i>Heliotropium curassavicum</i> ssp. <i>oculatum</i>	Wild Heliotrope
<i>Hymenoclea salsola</i>	Burrobush
<i>Juncus balticus</i>	Baltic Rush
<i>Larrea tridentata</i> var. <i>tridentata</i>	Creosote Bush
<i>Leymus cinereus</i>	Ashy Wild Rye
<i>Leymus triticoides</i>	Wheat-like Wild Rye
<i>Loeflingia squarrosa</i> ssp. <i>artemisiarum</i>	Sage-like Loeflingia
<i>Lotus corniculatus</i>	Bird's-foot Trefoil
<i>Medicago sativa</i>	Alfalfa
<i>Nitrophila occidentalis</i>	Nitrophila
<i>Oryctes nevadensis</i>	Nevada Oryctes
<i>Oryzopsis hymenoides</i>	Indian Ricegrass
<i>Phragmites australis</i>	Common Reed
<i>Populus fremontii</i>	Fremont's Cottonwood
<i>Psoralea argophylla</i> var. <i>minutifolia</i>	Mojave Dalea
<i>Ranunculus hydrocharoides</i>	Frog's-bit Buttercup
<i>Robinia pseudoacacia</i>	Black Locust
<i>Salix exigua</i>	Narrow-leaf Willow
<i>Salix gooddingii</i>	Goodding's Willow
<i>Salix laevigata</i>	Red Willow
<i>Salix lasiolepis</i>	Arroyo Willow
<i>Salix lutea</i>	Yellow Willow
<i>Salix melanopsis</i> Nutt.	Dusky Willow
<i>Sarcobatus vermiculatus</i>	Greasewood
<i>Scirpus</i> sp.	Bulrush
<i>Sidalcea covillei</i>	Owens Valley Checkerbloom
<i>Sporobolus airoides</i>	Alkali Sacaton
<i>Suaeda torreyana</i>	Seepweed
<i>Tamarix chinensis</i>	Tamarisk, Saltcedar
<i>Tamarix ramosissima</i>	Tamarisk, Saltcedar
<i>Tetradymia axillaris</i>	Cottonthorn
<i>Tetradymia</i> sp.	Horsbush
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i>	Plane-leaved Thelypodium
<i>Thelypodium crispum</i>	Crisped Thelypodium
<i>Trifolium</i> sp.	Clover
<i>Typha domingensis</i>	Cat-tail
<i>Viola nephrophylla</i>	Bog Violet
<i>Yucca brevifolia</i>	Joshua Tree

BY COMMON NAME

Alfalfa	<i>Medicago sativa</i>
Alkali Sacaton	<i>Sporobolus airoides</i>
Allscale	<i>Atriplex polycarpa</i>

Arroyo Willow	<i>Salix lasiolepis</i>
Ashy Wild Rye	<i>Leymus cinereus</i>
Baltic Rush	<i>Juncus balticus</i>
Bassia	<i>Bassia hyssopifolia</i>
Bermuda Grass	<i>Cynodon dactylon</i>
Big Sagebrush	<i>Artemisia tridentata</i> ssp. <i>tridentata</i>
Bird's-foot Trefoil	<i>Lotus corniculatus</i>
Black Locust	<i>Robinia pseudoacacia</i>
Blackbush	<i>Coleogyne ramosissima</i>
Bog Violet	<i>Viola nephrophylla</i>
Brome Grass	<i>Bromus</i> sp.
Bud-sage	<i>Artemisia spinescens</i>
Bulrush	<i>Scirpus</i> sp.
Burro Weed	<i>Ambrosia dumosa</i>
Burrobush	<i>Hymenoclea salsola</i>
California Buckwheat	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>
Cat-tail	<i>Typha domingensis</i>
Clover	<i>Trifolium</i> sp.
Common Reed	<i>Phragmites australis</i>
Cottonthorn	<i>Tetradymia axillaris</i>
Creosote Bush	<i>Larrea tridentata</i> var. <i>tridentata</i>
Crisped Thelypodium	<i>Thelypodium crispum</i>
Desert Bird's-beak	<i>Cordylanthus eremicus</i> ssp. <i>eremicus</i>
Dusky Willow	<i>Salix melanopsis</i> Nutt.
Fiddleneck	<i>Amsinckia</i> sp.
Filaree	<i>Erodium</i> sp.
Fish Slough Milk Vetch	<i>Astragalus lentiginosus</i> var. <i>piscinensis</i>
Fourwing Saltbush	<i>Atriplex canescens</i>
Fremont's Cottonwood	<i>Populus fremontii</i>
Frog's-bit Buttercup	<i>Ranunculus hydrocharoides</i>
Geyer's Milk Vetch	<i>Astragalus geyeri</i> var. <i>geyeri</i>
Goodding's Willow	<i>Salix gooddingii</i>
Greasewood	<i>Sarcobatus vermiculatus</i>
Hopsage	<i>Grayia spinosa</i>
Horsbush	<i>Tetradymia</i> sp.
Hot Springs Fimbristylis	<i>Fimbristylis spadicea</i>
Indian Ricegrass	<i>Oryzopsis hymenoides</i>
Inland Saltgrass	<i>Distichlis spicata</i> var. <i>stricta</i>
Inyo County Star-tulip	<i>Calochortus excavatus</i>
Iodine Bush	<i>Allenrolfea occidentalis</i>
Joshua Tree	<i>Yucca brevifolia</i>
Meadow Fescue	<i>Festuca arundinacea</i>
Mojave Dalea	<i>Psoralethamnus arborescens</i> var. <i>minutifolius</i>
Mono Buckwheat	<i>Eriogonum ampullaceum</i>
Mormon Tea	<i>Ephedra</i> sp.
Narrow-leaf Willow	<i>Salix exigua</i>
Nevada Ephedra	<i>Ephedra nevadensis</i>
Nevada Oryctes	<i>Oryctes nevadensis</i>

Nevada Saltbush	<i>Atriplex torreyi</i>
Nitrophila	<i>Nitrophila occidentalis</i>
Owens Valley Checkerbloom	<i>Sidalcea covillei</i>
Parry's Saltbush	<i>Atriplex parryi</i>
Plane-leaved Thelypodium	<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i>
Red Willow	<i>Salix laevigata</i>
Rubber Rabbitbrush	<i>Chrysothamnus nauseosus</i> ssp. <i>consimilis</i>
Sage-like Loefflingia	<i>Loeflingia squarrosa</i> ssp. <i>artemisiarum</i>
Sedge	<i>Carex</i> sp.
Seepweed	<i>Suaeda torreyana</i>
Serviceberry	<i>Amelanchier utahensis</i> ssp. <i>covillei</i>
Spike-rush	<i>Eleocharis</i> sp.
Sunflower	<i>Helianthus</i> sp.
Tamarisk, Saltcedar	<i>Tamarix chinensis</i>
Tamarisk, Saltcedar	<i>Tamarix ramosissimus</i>
Terete-leaved Rabbitbrush	<i>Chrysothamnus teretifolius</i>
Western Hackberry	<i>Celtis reticulata</i>
Wheat-like Wild Rye	<i>Leymus triticoides</i>
Wheatgrass	<i>Agropyron intermedium</i>
White Bur-sage	<i>Ambrosia dumosa</i>
Wild Heliotrope	<i>Heliotropium curassavicum</i> ssp. <i>oculatum</i>
Wild Licorice	<i>Glycyrrhiza lepidota</i>
Winter Fat	<i>Ceratoides lanata</i>
Yellow Willow	<i>Salix lutea</i>
Yerba Mansa	<i>Anemopsis californica</i>

APPENDIX B-5
RECOMMENDATION OF THE FIVE BRIDGES SUB-GROUP
MITIGATION ACTION PLAN AND SCHEDULE
FIVE BRIDGES AREA
March 21, 1991

INTRODUCTION

During the summer of 1988, an area of approximately 300 acres in the Five Bridges area north of Bishop suffered extensive impact to vegetation due to the combined effects of groundwater pumping, drought, and below-normal flows in the Owens River. In September of 1989, a wildfire burned approximately 40 acres of the standing dead vegetation, as well as some living riparian vegetation, leaving no vegetative cover.

LADWP provided surface water to some parts of the impact area between 1988 and 1990, and partial vegetation recovery has occurred in response. However, due to several environmental constraints at the site, additional measures may be necessary to stimulate recovery over some of the area.

Water table monitoring in the area and experimental surface water irrigation were begun in 1988, and vegetation has shown some response and regrowth; however, due to the topography of the area, soil limitations, and the nature of native vegetation composition, additional measures will be necessary to stimulate recovery over some of the area.

At its October 15, 1990, meeting, the Technical Group established the Five Bridges Sub-Group with the express purpose of developing recommendations for a cooperative mitigation plan for the Five Bridges impact area. This document outlines the goals and tasks developed by the sub-group

to accomplish this purpose. The tasks and determinations called for in this document will be recommended by the sub-group to the Technical Group.

AUTHORITY

Section I.C.2. of the Green Book states that the "Technical Group is responsible for developing a mitigation plan for [an] affected area.... The preferred goal of the plan would be to restore the same type of perennial vegetation cover in the affected area ... and to restore vegetation to a vegetation community that falls within the type classification depicted on the vegetation management map." (The procedure for developing and implementing a mitigation plan is described in the Green Book, pages 28-31.)

MITIGATION GOAL

The overall goal for mitigation of the Five Bridges impact area is to return the area to a complex of vegetation communities with similar species composition and cover as exists at local sites with similar environmental parameters.

MITIGATION STRATEGY AND ACTION

The intent of the mitigation strategy is to stimulate natural progression or recovery of native species while minimizing surface disturbance at the impact site.

I. Completed Mitigation Activities

A. Chronology of Field Activities:

October, 1988

- o Soil trenches excavated to analyze soil characteristics
- o Water diverted into impact area for surface irrigation
- o Piezometers installed to monitor depth to groundwater
- o Permanent photo plots established

November, 1988

- o Grazing excluded from area west of old Five Bridges Rd

December, 1988

- o Surface irrigation discontinued for season

March, 1989

- o Water diverted into impact area for surface irrigation

April, 1989

- o Enhancement/Mitigation wells 385 and 386 turned off
- o Permanent vegetation transects established

September, 1989

- o New ditch system activated to increase area influenced by surface irrigation

October, 1989

- o Surface irrigation discontinued for season

April, 1990

- o Water diverted into impact area for surface irrigation

October, 1990

- o Surface irrigation discontinued for season

April-August, 1990

- o Selective removal of standing dead willows

- B. Delineate boundary of mitigation area (December, 1990)
- C. Delineate pre-impact vegetation and compile species list (December, 1990)
- D. Delineate areas that have received mitigation (December, 1990)
- E. Delineate areas of concern for mitigation, treatment during 1991 growing season (December, 1990)

II. Mitigation Plan for 1991

The Five Bridges site has been divided into a number of different areas. The sub-group has attempted to describe and map these areas in order to standardize terminology.

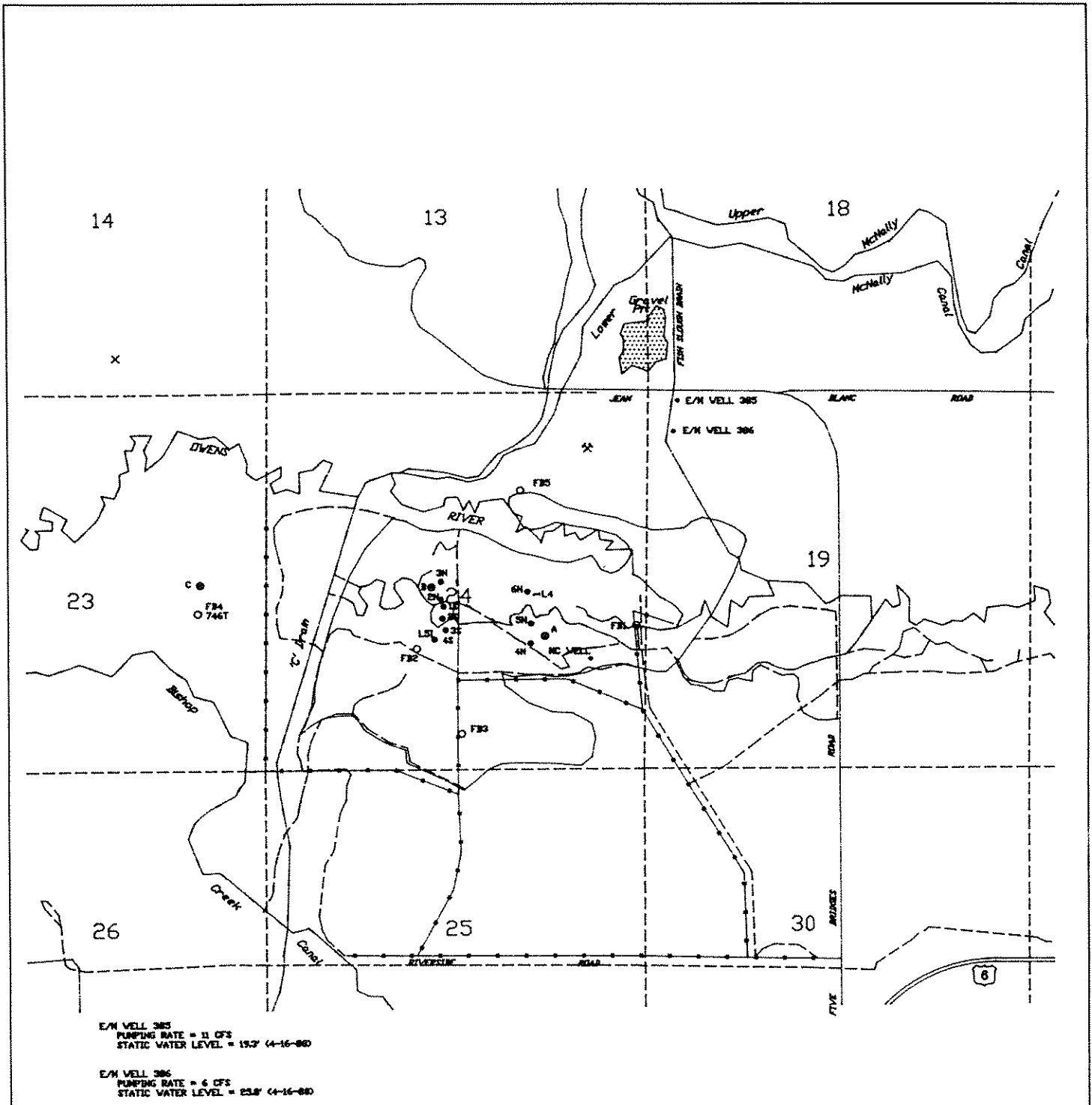
Two boundaries of the site have been delineated on the attached map. One delineation, the "impact boundary," is the area which is accepted by Inyo County and LADWP as having been impacted by groundwater pumping. Adjacent to the impact area lie "areas of concern." The two agencies do not necessarily agree that these peripheral areas have been impacted by groundwater pumping. Portions of both mapped areas have received mitigation. Within the impact boundary lies a "burn area" which both agencies agree requires additional measures.

Mitigation activities recommended for 1991 include the following:

- A. Mitigation activities over the entire site:
1. Continue monitoring piezometers and vegetation transects. Groundwater will be monitored monthly and vegetation transects will be monitored at approximately the same interval and frequency as during 1989 and 1990 (Spring/Summer, 1991).
 2. Monitoring requirements for enhancement/mitigation wells 385 and 386 will be determined by the Monitoring Sub-Group.
 3. Evaluate and map current vegetation conditions and select local sites for comparison (Spring, 1991).
- B. Mitigation for the area outside the burn area:
1. Continue past water spreading activities (define according to chronology) (Spring/Summer, 1991).
 2. Continue limited grazing east of the old Five Bridges Road. No grazing will occur on the rest of the fenced portion of the mitigation area during the winter of 1990-1991. Prior to resuming grazing in this area, the Technical Group will evaluate the vegetation conditions (Approximately three months beginning in January, 1991).
 3. Determine and implement method of disposal of willow debris (January-February, 1991). Areas of standing and removed willows will be observed and recovery will be compared (Spring/Summer, 1991).
- C. Mitigation activities within the burn area:
1. Efforts will be made to expand surface water spreading into the burn area through meanders and ditches and determine extent of area that will be affected by this method of irrigation with installation of additional shallow piezometers (Spring, 1991).
 2. Plots will be selected where surface water application and/or revegetation will be implemented (March-June, 1991):
 - a. Harvest, wash and grade saltgrass rhizomes from the Owens Lake playa.
 - b. Plant rhizomes with viable appearing buds over a two to three acre area.
 - c. Irrigate the area of the burn site that has not recovered naturally, including the revegetated area, with the rain gun or other alternatives, if needed.
 3. Devise plan for monitoring all watering and planting procedures (March-May, 1991).

III. Following the 1991 Growing Season

- A. Determine success of mitigation activities in achieving the mitigation goal. (October, 1991)
- B. Determine whether additional measures and the continued removal of remaining standing dead willows are necessary (November-December, 1991).
- C. Coordinate with the Monitoring Sub-Group to develop vegetation and groundwater monitoring plans and monitoring procedures based on proposed long-term management (October- December, 1991).



O W E N S V A L L E Y

FIGURE B5-1
FIVE BRIDGES AREA
MITIGATION PLAN

- IMPACT BOUNDARY
- AREA OF CONCERN
- PHOTO PLOT
- PERMANENT TRANSECT
- PIEZOMETER
- INDICATES SOIL TRENCH SITE
- WATER SPREADING COURSE

SOURCE: LADWP AND INYO COUNTY WATER DEPARTMENT

FEET 0 1000 2000



Appendix C

Wildlife

APPENDIX C-1

**BIRDS FOUND ON LOS ANGELES OWNED LANDS
ON OWENS VALLEY FLOOR**

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Red-throated Loon	<i>Gavia stellata</i>
Pacific Loon	<i>Gavia pacifica</i>
Common Loon	<i>Gavia immer</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
Horned Grebe	<i>Podiceps auritus</i>
Eared Grebe	<i>Podiceps nigricollis</i>
Western Grebe	<i>Aechmophorus occidentalis</i>
American White Pelican	<i>Pelecanus erythrorhynchos</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>
American Bittern	<i>Botaurus lentiginosus</i>
Least Bittern	<i>Ixobrychus exilis</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Casmerodius albus</i>
Snowy Egret	<i>Egretta thula</i>
Little Blue Heron	<i>Egretta caerulea</i>
Cattle Egret	<i>Bubulcus ibis</i>
Green-backed Heron	<i>Butorides striatus</i>
Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>
White-faced Ibis	<i>Plegadis chihi</i>
Tundra Swan	<i>Cygnus columbianus</i>
Greater White-fronted Goose	<i>Anser albifrons</i>
Snow Goose	<i>Chen caerulescens</i>
Ross' Goose	<i>Chen rossii</i>
Brant	<i>Branta bernicla</i>
Canada Goose	<i>Branta canadensis</i>
Wood Duck	<i>Aix sponsa</i>
Green-winged Teal	<i>Anas crecca</i>
Mallard	<i>Anas platyrhynchos</i>
Northern Pintail	<i>Anas acuta</i>
Blue-winged Teal	<i>Anas discors</i>
Cinnamon Teal	<i>Anas cyanoptera</i>

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Northern Shoveler	<i>Anas clypeata</i>
Gadwall	<i>Anas strepera</i>
Eurasian Wigeon	<i>Anas penelope</i>
American Wigeon	<i>Anas americana</i>
Canvasback	<i>Aythya valisineria</i>
Redhead	<i>Aythya americana</i>
Ring-necked Duck	<i>Aythya collaris</i>
Greater Scaup	<i>Aythya marila</i>
Lesser Scaup	<i>Aythya affinis</i>
Oldsquaw	<i>Clangula hyemalis</i>
Surf Scoter	<i>Melanitta perspicillata</i>
White-winged Scoter	<i>Melanitta fusca</i>
Common Goldeneye	<i>Bucephala clangula</i>
Barrow's Goldeneye	<i>Bucephala islandica</i>
Bufflehead	<i>Bucephala albeola</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>
Common Merganser	<i>Mergus merganser</i>
Red-breasted Merganser	<i>Mergus serrator</i>
Ruddy Duck	<i>Oxyura jamaicensis</i>
Turkey Vulture	<i>Cathartes aura</i>
Osprey	<i>Pandion haliaetus</i>
Black-shouldered Kite	<i>Elanus caeruleus</i>
Mississippi Kite	<i>Ictinia mississippiensis</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Northern Harrier	<i>Circus cyaneus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Zone-tailed Hawk	<i>Buteo albonotatus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
Golden Eagle	<i>Aquila chrysaetos</i>
American Kestrel	<i>Falco sparverius</i>
Merlin	<i>Falco columbarius</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Prairie Falcon	<i>Falco mexicanus</i>
Chukar	<i>Alectoris chukar</i>
Ring-necked Pheasant	<i>Phasianus colchicus</i>
California Quail	<i>Callipepla californica</i>
Mountain Quail	<i>Oreortyx pictus</i>
Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
Common Moorhen	<i>Gallinula chloropus</i>

COMMON NAMESCIENTIFIC NAME

American Coot	<i>Fulica americana</i>
Sandhill Crane	<i>Grus canadensis</i>
Black-bellied Plover	<i>Pluvialis squatarola</i>
Snowy Plover	<i>Charadrius alexandrinus</i>
Semipalmated Plover	<i>Charadrius semipalmatus</i>
Killdeer	<i>Charadrius vociferus</i>
Mountain Plover	<i>Charadrius montanus</i>
Black-necked Stilt	<i>Himantopus mexicanus</i>
American Avocet	<i>Recurvirostra americana</i>
Greater Yellowlegs	<i>Tringa melanoleuca</i>
Lesser Yellowlegs	<i>Tringa flavipes</i>
Solitary Sandpiper	<i>Tringa solitaria</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Spotted Sandpiper	<i>Actitis macularia</i>
Whimbrel	<i>Numenius phaeopus</i>
Long-billed Curlew	<i>Numenius americanus</i>
Marbled Godwit	<i>Limosa fedoa</i>
Ruddy Turnstone	<i>Arenaria interpres</i>
Sanderling	<i>Calidris alba</i>
Semipalmated Sandpiper	<i>Calidris pusilla</i>
Western Sandpiper	<i>Calidris mauri</i>
Least Sandpiper	<i>Calidris minutilla</i>
Baird's Sandpiper	<i>Calidris bairdii</i>
Pectoral Sandpiper	<i>Calidris melanotos</i>
Dunlin	<i>Calidris alpina</i>
Stilt Sandpiper	<i>Calidris himantopus</i>
Short-billed Dowitcher	<i>Limnodromus griseus</i>
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>
Common Snipe	<i>Gallinago gallinago</i>
Wilson's Phalarope	<i>Phalaropus tricolor</i>
Red-necked Phalarope	<i>Phalaropus lobatus</i>
Red Phalarope	<i>Phalaropus fulicaria</i>
Parasitic Jaeger	<i>Stercorarius parasiticus</i>
Long-tailed Jaeger	<i>Stercorarius longicaudus</i>
Franklin's Gull	<i>Larus pipixcan</i>
Bonaparte's Gull	<i>Larus philadelphia</i>
Heermann's Gull	<i>Larus heermanni</i>
Ring-billed Gull	<i>Larus delawarensis</i>
California Gull	<i>Larus californicus</i>
Glaucous Gull	<i>Larus glaucescens</i>
Herring Gull	<i>Larus argentatus</i>
Sabine's Gull	<i>Xema sabini</i>
Caspian Tern	<i>Sterna caspia</i>
Common Tern	<i>Sterna hirundo</i>
Arctic Tern	<i>Sterna paradisaea</i>
Forster's Tern	<i>Sterna forsteri</i>

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Least Tern	<i>Sterna antillarum</i>
Black Tern	<i>Chlidonias niger</i>
Rock Dove	<i>Columba livia</i>
Band-tailed Pigeon	<i>Columba fasciata</i>
White-winged Dove	<i>Zenaida asiatica</i>
Mourning Dove	<i>Zenaida macroura</i>
Common Ground-Dove	<i>Columbina passerina</i>
Ruddy Ground-Dove	<i>Columbina talpacoti</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Greater Roadrunner	<i>Geococcyx californianus</i>
Common Barn-Owl	<i>Tyto alba</i>
Western Screech-Owl	<i>Otus kennicottii</i>
Great Horned Owl	<i>Bubo virginianus</i>
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>
Burrowing Owl	<i>Athene cunicularia</i>
Long-eared Owl	<i>Asio otus</i>
Short-eared Owl	<i>Asio flammeus</i>
Northern Saw-whet Owl	<i>Aegolius acadicus</i>
Lesser Nighthawk	<i>Chordeiles acutipennis</i>
Common Nighthawk	<i>Chordeiles minor</i>
Common Poorwill	<i>Phalaenoptilus nuttallii</i>
Black Swift	<i>Cypseloides niger</i>
Chimney Swift	<i>Chaetura pelagica</i>
Vaux's Swift	<i>Chaetura vauxi</i>
White-throated Swift	<i>Aeronautes saxatalis</i>
Black-chinned Hummingbird	<i>Archilochus alexandri</i>
Anna's Hummingbird	<i>Calypte anna</i>
Costa's Hummingbird	<i>Calypte costae</i>
Calliope Hummingbird	<i>Stellula calliope</i>
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>
Rufous Hummingbird	<i>Selasphorus rufus</i>
Belted Kingfisher	<i>Ceryle alcyon</i>
Green Kingfisher	<i>Chloroceryl americana</i>
Lewis' Woodpecker	<i>Melanerpes lewis</i>
Acorn Woodpecker	<i>Melanerpes formicivorus</i>
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>
Red-breasted Sapsucker	<i>Sphyrapicus ruber</i>
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>
Ladder-backed Woodpecker	<i>Picoides scalaris</i>
Nuttall's Woodpecker	<i>Picoides nuttallii</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
White-headed Woodpecker	<i>Picoides albolarvatus</i>
Northern Flicker	<i>Colaptes auratus</i>
Olive-sided Flycatcher	<i>Contopus borealis</i>
Western Wood-Pewee	<i>Contopus sordidulus</i>

COMMON NAMESCIENTIFIC NAME

Willow Flycatcher	<i>Empidonax trailii</i>
Dusky Flycatcher	<i>Empidonax oberholseri</i>
Gray Flycatcher	<i>Empidonax wrightii</i>
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>
Black Phoebe	<i>Sayornis nigricans</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Say's Phoebe	<i>Sayornis saya</i>
Vermilion Flycatcher	<i>Pyrocephalus rubinus</i>
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Scissor-tailed Flycatcher	<i>Tyrannus forficatus</i>
Horned Lark	<i>Eremophila alpestris</i>
Purple Martin	<i>Progne subis</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Violet-green Swallow	<i>Tachycineta thalassina</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Bank Swallow	<i>Riparia riparia</i>
Cliff Swallow	<i>Hirundo pyrrhonota</i>
Barn Swallow	<i>Hirundo rustica</i>
Steller's Jay	<i>Cyanocitta stelleri</i>
Scrub Jay	<i>Aphelocoma coerulescens</i>
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>
Clark's Nutcracker	<i>Nucifraga columbiana</i>
Black-billed Magpie	<i>Pica pica</i>
American Crow	<i>Corvus brachyrhynchos</i>
Common Raven	<i>Corvus corax</i>
Mountain Chickadee	<i>Parus gambeli</i>
Plain Titmouse	<i>Parus inornatus</i>
Verdin	<i>Auriparus flavipes</i>
Bushtit	<i>Psaltriparus minimus</i>
Red-breasted Nuthatch	<i>Sitta canadensis</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Pygmy Nuthatch	<i>Sitta pygmaea</i>
Brown Creeper	<i>Certhia americana</i>
Cactus Wren	<i>Campylorhynchus brunneicapillus</i>
Rock Wren	<i>Salpinctes obsoletus</i>
Canyon Wren	<i>Catherpes mexicanus</i>
Bewick's Wren	<i>Thryomanes bewickii</i>
House Wren	<i>Troglodytes aedon</i>
Winter Wren	<i>Troglodytes troglodytes</i>
Marsh Wren	<i>Cistothorus palustris</i>
American Dipper	<i>Cinclus mexicanus</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Western Bluebird	<i>Sialia mexicana</i>
Mountain Bluebird	<i>Sialia currucoides</i>
Townsend's Solitaire	<i>Myadestes townsendi</i>
Swainson's Thrush	<i>Catharus ustulatus</i>
Hermit Thrush	<i>Catharus guttatus</i>
American Robin	<i>Turdus migratorius</i>
Varied Thrush	<i>Ixoreus naevius</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>
Brown Thrasher	<i>Toxostoma rufum</i>
LeConte's Thrasher	<i>Toxostoma lecontei</i>
American Pipit	<i>Anthus rubescens</i>
Bohemian Waxwing	<i>Bombycilla garrulus</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Phainopepla	<i>Phainopepla nitens</i>
Northern Shrike	<i>Lanius excubitor</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
European Starling	<i>Sturnus vulgaris</i>
Gray Vireo	<i>Vireo vicinior</i>
Solitary Vireo	<i>Vireo solitarius</i>
Warbling Vireo	<i>Vireo gilvus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
Blue-winged Warbler	<i>Vermivora pinus</i>
Golden-winged Warbler	<i>Vermivora chrysoptera</i>
Tennessee Warbler	<i>Vermivora peregrina</i>
Orange-crowned Warbler	<i>Vermivora celata</i>
Nashville Warbler	<i>Vermivora ruficapilla</i>
Northern Parula	<i>Parula americana</i>
Yellow Warbler	<i>Dendroica petechia</i>
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>
Magnolia Warbler	<i>Dendroica magnolia</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>
Townsend's Warbler	<i>Dendroica townsendi</i>
Hermit Warbler	<i>Dendroica occidentalis</i>
Black-and-white Warbler	<i>Mniotilta varia</i>
American Redstart	<i>Setophaga ruticilla</i>
Ovenbird	<i>Seiurus aurocapillus</i>
Northern Waterthrush	<i>Seiurus noveboracensis</i>
MacGillivray's Warbler	<i>Oporornis tolmiei</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Hepatic Tanager	<i>Piranga flava</i>

COMMON NAMESCIENTIFIC NAME

Summer Tanager	<i>Piranga rubra</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Western Tanager	<i>Piranga ludoviciana</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Blue Grosbeak	<i>Guiraca caerulea</i>
Lazuli Bunting	<i>Passerina amoena</i>
Indigo Bunting	<i>Passerina cyanea</i>
Dickcissel	<i>Spiza americana</i>
Green-tailed Towhee	<i>Pipilo chlorurus</i>
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>
California Towhee	<i>Pipilo crissalis</i>
American Tree Sparrow	<i>Spizella arborea</i>
Chipping Sparrow	<i>Spizella passerina</i>
Brewer's Sparrow	<i>Spizella breweri</i>
Black-chinned Sparrow	<i>Spizella atrogularis</i>
Vesper Sparrow	<i>Pooecetes gramineus</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Black-throated Sparrow	<i>Amphispiza bilineata</i>
Sage Sparrow	<i>Amphispiza belli</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
Grasshopper Sparrow	<i>Ammodramus savannarum</i>
Fox Sparrow	<i>Passerella iliaca</i>
Song Sparrow	<i>Melospiza melodia</i>
Lincoln's Sparrow	<i>Melospiza lincolnii</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Harris' Sparrow	<i>Zonotrichia querula</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Chestnut-collared Longspur	<i>Calcarius ornatus</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Tricolored Blackbird	<i>Agelaius tricolor</i>
Western Meadowlark	<i>Sturnella neglecta</i>
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Rusty Blackbird	<i>Euphagus carolinus</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
Great-tailed Grackle	<i>Quiscalus mexicanus</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Northern Oriole	<i>Icterus galbula</i>
Scott's Oriole	<i>Icterus parisorum</i>
Purple Finch	<i>Carpodacus purpureus</i>
House Finch	<i>Carpodacus mexicanus</i>
Red crossbill	<i>Loxia curvirostra</i>
Lesser Goldfinch	<i>Carduelis psaltria</i>

COMMON NAME

American Goldfinch
Evening Grosbeak
House Sparrow

SCIENTIFIC NAME

Carduelis tristis
Coccothraustes vespertinus
Passer domesticus

APPENDIX C-2

LOWER OWENS RIVER PROJECT

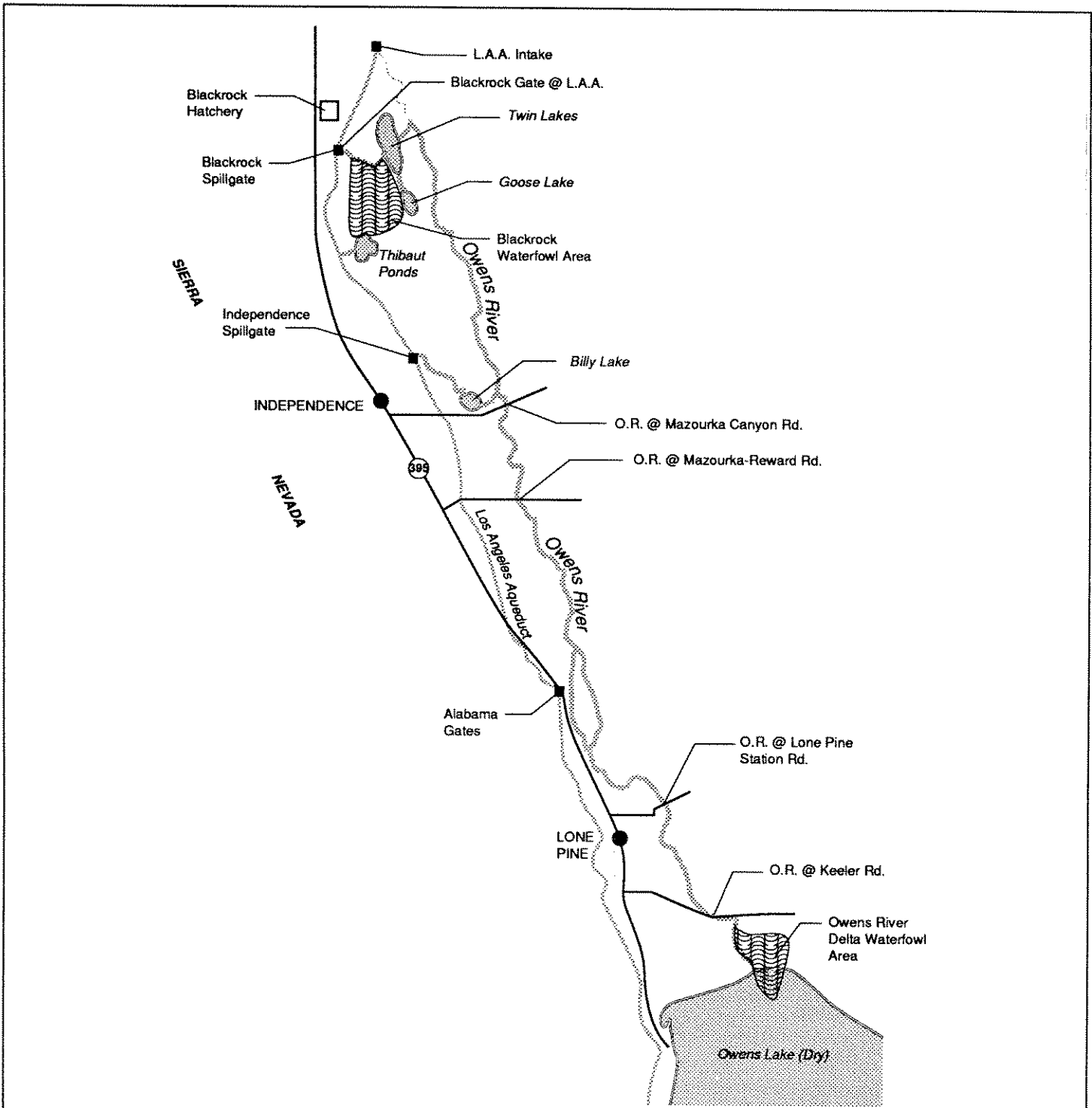
A major element of the proposed project is the Lower Owens River Project. This additional enhancement/mitigation project involves increased rewatering of a 56-mile stretch of the Owens River channel between Blackrock and Lone Pine, as shown in Figure C2-1. Full development of this project would be in addition to the water releases into the river channel which were initiated in 1986. The project would be jointly managed by LADWP, Inyo County, and the California Department of Fish and Game. LADWP would construct, operate, and maintain the system. This project will be the subject of a separate EIR.

The project proposes to enhance both the warmwater fishery of the area as well as waterfowl habitat.

Permanent flows in the old river channel between Blackrock Fish Hatchery, north of Independence, and the Owens River delta, near Lone Pine, averaging approximately 35 cfs annually, would support and enhance a warmwater fishery in the river and impoundments (to be created along the watercourse). Permanent water releases to five existing lakes and ponds, easterly of Independence, will sustain fishery and wildlife habitats. These lakes and ponds are:

- o Upper and Lower Twin Lakes
- o Goose Lake
- o Thibaut Ponds
- o Billy Lakes

The project's river banks, ponds, and lakes, and seasonal releases into wetland areas near Blackrock and the delta, will provide excellent breeding sites and feeding grounds for a wide variety of waterfowl, migratory water birds, and shore birds, including ducks, geese, and herons. Many mam-



O W E N S V A L L E Y

FIGURE C2-1
 LOWER OWENS RIVER
 ENHANCEMENT/MITIGATION
 PROJECT

SOURCE: LADWP AQUEDUCT DIVISION

NO SCALE



88041

mal species, such as Tule elk, also use project areas for calving during dry years and will be dependent upon improved project habitat. Development of two major waterfowl management units will provide approximately 850 acres of wetland habitat on an annual basis.

A key element of the project which would enable higher flows in the river is pump-back system near Keeler Bridge. This pump-back station would recapture most of the increased river flow and pump it back to the aqueduct at Lone Pine. As provided in the Agreement, LADWP would commence construction of this facility within three years of the Court's approval of the Agreement. The facility would be capable of pumping up to 50 cfs from the river to the aqueduct. A release would be made from the pump-back site to supply the southern end of the river and the Owens River delta.

In addition to EIR analysis of planned project elements, a joint Habitat Management Plan will be prepared for development, operation, and maintenance criteria for the multi-faceted project. Some of the elements of such a Plan would address such areas as:

- o Management of the Owens River channel and any new impoundments, including seasonal flow ranges, point of release and diversion, provisions for channel maintenance, control or enhancement of riparian corridor vegetation and wildlife, and user accessibility.
- o Management of off-river pond areas (primarily the existing identified lakes and ponds, including guidelines for their operation to control tule encroachment).
- o Management of the Blackrock waterfowl area, including diversion facilities improvements, identification of wetlands habitat areas to be enhanced by seasonal flooding, and guidelines for rotational management to discourage uncontrolled tule encroachment.
- o Management of the Owens River delta area, including improvement through dikes and culverts of the water spreading capability at this location, development of small impoundments, improved user access, seasonal water spreading criteria, and wildlife and livestock management guidelines.



APPENDIX C-3
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APPENDIX C-4
UPDATED LIST OF ANIMAL SPECIES

	<u>Habitat Types</u>	<u>Abundance Occurrence</u>	<u>Foods (in decreasing order of importance)</u>
BIRDS			
Sage sparrow (<i>Amphispiza belli</i>)	E,F	C, yl, B	2a,7,5a,4,14
Dark-eyed junco (<i>Junco hyemalis</i>)	C,I	C, wr	2a,5a,7,14
Oregon junco (<i>Junco oreganus</i>)	C,G,I	FC, yl, B	2a,7,5a,4,14
Chipping sparrow (<i>Spizella passerina</i>)			
Brewer's sparrow (<i>Spizella breweri</i>)	F	C, sr	2a,7,14,5a
Black-chinned sparrow (<i>Spizella atrogularis</i>)	F	R, sr	2a,5a,4,7,1a,14
Harris' sparrow (<i>Zonotrichia querula</i>)	E,F	U, wr	2a,5a,7,14
White-crowned sparrow (<i>Zonotrichia leucophrys</i>)	B,C,D,E,G	C, yl, B	2a,7,4,5a,14
Golden-crowned sparrow (<i>Zonotrichia tricapilla</i>)	C	U, m	2a,5a,7,14,1a
White-throated sparrow (<i>Zonotrichia aloicollis</i>)	C	R, wr	2a,5a,7,1a,14
Fox sparrow (<i>Passerella iliaca</i>)	B,C	U, sr	2a,1a,4,7,5a,14
Lincoln's sparrow (<i>Melospiza lincolni</i>)	B,C	U, yl, B	2a,5a,4,7,14
Song sparrow (<i>Melospiza melodia</i>)	B,C,I	C, yl, B	2a,5a,4,7,1a,14
Lapland longspur (<i>Calcarius lapponicus</i>)	D,G	R, wr	5a,2a,7,4
MAMMALS			
<u>Marsupialia</u>			
Opossum (<i>Didelphis virginianus</i>)	C	R, N, yl	1a,2,15a,16c,7,15c
<u>Insectivora</u>			
Vagrant shrew (<i>Sorex vagrans</i>)	C	C, yl, B	7,6,14,13a,11,2
Northern water shrew (<i>Sorex palustris</i>)	A,B	FC, yl, B	12,11,6,7
Broad-footed mole (<i>Scapanus latimanus</i>)	C,D,E,F,G	C, yl, B	13a,7,2b

	<u>Habitat Types</u>	<u>Abundance & Occurrence</u>	<u>Foods (in decreasing order of importance)</u>
<u>Chiroptera</u>			
Little brown myotis bat (<i>Myotis lucifugus</i>)	C,D	C,yl,N,H,B	7,6
Fringed myotis (<i>Myotis thysanodes</i>)	C,D,F	C,yl,N,H,B	7,6
Long-eared myotis (<i>Myotis evotis</i>)	C,D,F	C,yl,N,H,B	7,6
California myotis (<i>Myotis californicus</i>)	C,D,F	C,yl,N,H,B	7,6
Yuma myotis (<i>Myotis yumanensis</i>)	D,E,F	C,yl,N,H,B	7,6
Long-legged myotis (<i>Myotis volans</i>)	C,D,E,F	C,yl,N,H,B	7,6
Small-footed myotis (<i>Myotis subulatus</i>)	C,D,E,F	FC,yl,N,H,B	7,6
Silver-haired bat (<i>Iasionycterius noctivagans</i>)	C,F*	U, m, N	7,6
Western pipistrel (<i>Pipistrellus hesperus</i>)	C,F	C,yl,N,H,B	7,6
Red bat (<i>Lasiurus borealis</i>)	C,D	C, M, N	7,6
Big brown bat (<i>Eptesicus fuscus</i>)	C,F	C,yl,N,H,B	7,6
Hoary bat (<i>Lasiurus cinereus</i>)	C*	C, m, N	7,6
Spotted bat (<i>Euderma maculata</i>)	C,F*	R,yl,N,H,B	7,6
Western big-eared bat (<i>Plecotus townsendi</i>)	F	C,yl,N,H,B	7,6
Pallid bat (<i>Antrozous pallidus</i>)	C,D,F	C, m, N	7,6
Mexican freetail bat (<i>Tadarida brasiliensis</i>)	C,D,F	C, m, N	7,6
<u>Carnivora</u>			
Black bear (<i>Ursus americanus</i>)	C*	U,yl,H,B	1a,2b,7,15a,16c,15c
Raccoon (<i>Procyon lotor</i>)	B,C	C,yl,N,B	10,12,1a,6,7
Ringtail cat (<i>Bassariscus astutus</i>)	C	R,yl,N,B	15a,7,16a,1a,9
Long-tailed weasel (<i>Mustela frenata</i>)	C	U,yl,N,B	15a,16a+c,10,12,8
Badger (<i>Taxidea taxus</i>)	E,F	FC,yl,N,B	15a,9,7
Striped skunk (<i>Mephitis mephitis</i>)	C,D,E,G	C,yl,N,B	16a,16c,7,1a,15c,9
Spotted skunk (<i>Spilogale puori</i>)	C,G	U,yl,N,B	15a,16a+c,7,15c,9
Coyote (<i>Canis latrans</i>)	C,D,E,F,G,H	C, yl, B	15a+b,16a+b,1a,8,2
Kit fox (<i>Vulpes macrotis</i>)	E,F	R,yl,N,B	15a,7,16a,9,10,1a
Gray fox (<i>Urocyon cinereoargenteus</i>)	C,F*	U,yl,N,B	15a,7,1a,16a
Mountain lion (<i>Felis concolor</i>)	C,F*	U, wr	Deer,15a+b,16a
Bobcat (<i>Lynx rufus</i>)	C,F	FC,yl,N,B	15a+b,16a,8
<u>Rodentia</u>			
Whitetail antelope squirrel (<i>Ammospermophilus leucurus</i>)	E,F	C, yl, B	2a,1a,5a,7
Townsend ground squirrel (<i>Spermophilus townsendi</i>)	F	U,yl,H,B	2a,1a,5a
California ground squirrel (<i>Spermophilus beechyi</i>)	C,E,F,G	C,yl,H,B	2a,1a,5,7,16a+c
Valley pocket gopher (<i>Thomomys bottae</i>)	C,D,G	C, yl, B	1b,2b,5
Little pocket mouse (<i>Perognathus longimembris</i>)	C,F	C,yl,N,H,B	2a,1a,5a
Longtail pocket mouse (<i>Perognathus formosus</i>)	E,F	C,yl,N,H,B	2a,1a,5a,4

Appendix C-4

	<u>Habitat Types</u>	<u>Abundance & Occurrence</u>	<u>Foods (in decreasing order of importance)</u>
Great Basin pocket mouse (<i>Perognathus narvus</i>)	C,E,I	C,yI,N,H,B	2a,1a,5a,4
Canyon mouse (<i>Peromyscus crinitus</i>)	F	C,yI,N,B	2a,1a,7
Brush mouse (<i>Peromyscus boylei</i>)	C,E,F	C,yI,N,B	1a,2a,7
Deer mouse (<i>Peromyscus maniculatus</i>)	B,C,D,E,F,G	C,yI,N,B	2a,1a,7
Western harvest mouse (<i>Reithrodontomys megalotis</i>)	B,C,D,E,F	C,yI,N,B	2a,1a,5a,7
Southern grasshopper mouse (<i>Onychomys torridus</i>)	E,F	C,yI,N,B	7,9,15a
Ord kangaroo rat (<i>Dipodomys ordii</i>)	E,F	C,yI,N,B	2a,5a,1a
Panamint kangaroo rat (<i>Dipodomys panamintinus</i>)	E,F	FC,yI,N,B	2,5,1a
Merriam kangaroo rat (<i>Dipodomys merriami</i>)	E,F	FC,yI,N,B	2,5,1a
Great Basin kangaroo rat (<i>Dipodomys microps</i>)	C,E,F	FC,yI,N,B	2,5,1a
Desert kangaroo rat (<i>Dipodomys deserti</i>)	C,E,F	U,yI,N,B	2,5,1a
Pale kangaroo mouse (<i>Microdipidops pallidus</i>)	E,F	U,yI,N,B	2a,5,1a
Sagebrush vole (<i>Lagurus auratus</i>)	F	C,yI,B	1b,2b,5
Meadow vole (<i>Microtus californicus</i>)	B,C,D	C,yI,B	5,2,3,1a+b
House mouse (<i>Mus musculus</i>)	C,I	C,yI,B	Anything edible
Desert woodrat (<i>Neotoma lipida</i>)	B,C,E,F	FC,yI,B	1a,2a+b
Bushy-tail woodrat (<i>Neotoma cinerea</i>)	B,C,F	FC,yI,B	1b,2b,5
Dusky-footed woodrat (<i>Neotoma fuscipes</i>)	B,C,F	R,yI,N,B	1a+b,2a+b,5
Beaver (<i>Castor canadensis</i>)	C	FC,yI,N,B	1b,3b
Porcupine (<i>Erethizon dorsatum</i>)	C	C,yI,N,B	1a+b,2b,3b
<u>Lagomorpha</u>			
Blacktail jackrabbit (<i>Lepus californicus</i>)	C,D,E,F,G	C,yI,B	2b,5,1b,4
Desert cottontail (<i>Sylvilagus auduboni</i>)	C,D,E,F,G	C,yI,B	2b,5,1b,4
<u>Artiodactyla</u>			
Tule elk (<i>Cervus nannodes</i>)	B,C,D,E,F,G	C,yI,B	1b,2b,4,3b,5
Mule deer (<i>Odocoileus hemionus</i>)	B,C,E,F	FC,yI,B	1b,2b,5
California bighorn sheep (<i>Ovis canadensis californiana</i>)	C,F*	U,wr	5,2b,1b
<u>REPTILES</u>			
<u>Gekkonidae</u>			
Desert banded gecko (<i>Coleonyx variegatus variegatus</i>)	F	U,yI,N,H,B	7,14
<u>Iguanidae</u>			
Desert iguana (<i>Dipsosaurus dorsalis dorsalis</i>)	F	R,yI,H,B	2b,1a+b,7,15c
Chuckwalla (<i>Sauromalus obesus</i>)	F	U,yI,H,B	2b,1a+b

	<u>Habitat Types</u>	<u>Abundance & Occurrence</u>	<u>Foods (in decreasing order of importance)</u>
Collared lizard (<i>Crotaphytus collaris</i>)	F	FC,yI,H,B	7,14,9,2b,1a+b
Leopard lizard (<i>Gambelia wislizenii</i>)	F	FC,yI,H,B	7,14,9,2b,1a+b
Barred spiny lizard (<i>Sceloporus magister transversus</i>)	C,E,F,G	C,yI,H,B	7,14,2b,1a+b
Great Basin fence lizard (<i>Sceloporus occidentalis longipedus</i>)	C,E,F	C,yI,H,B	7,14,2b,1a+b
Sagebrush lizard (<i>Sceloporus graciosus graciosus</i>)	C,D,E,F	C,yI,H,B	7,14,9,2b,1a+b
Northern side-blotched lizard (<i>Uta stansburiana stansburiana</i>)	C,D,E,F	C,yI,H,B	7,14
Zebratail lizard (<i>Callisaurus draconoides</i>)	E,F	C,yI,H,B	7,14,9,2b,1a+b
Southern desert horned lizard (<i>Phrynosoma platyrhinos calidiarum</i>)	E,F	C,yI,H,B	7,14,2b,1a+b,9
<u>Xantusiidae</u>			
Desert night lizard (<i>Xantusia vigilis vigilis</i>)	F	R,yI,H,B	7,14
<u>Scincidae</u>			
Gilbert's skink (<i>Eumeces gilberti</i>)	C,F	R,yI,H,B	7,14
Western skink (<i>Eumeces skiltonianus</i>)			
<u>Teiidae</u>			
Great Basin whiptail (<i>Cnemidophorus tigris tigris</i>)	C,D,E,F	C,yI,H,B	7,14,9
<u>Anguidae</u>			
Sierra alligator lizard (<i>Elegaria coerulea palmeri</i>)	C,F	R,yI,H,B	7,14,11a
Southern alligator lizard (<i>Elegaria multicarinata</i>)			
<u>Leptotyphlopidae</u>			
Western Blind Snake (<i>Leptotyphlops humilis</i>)			
<u>Boidae</u>			
Pacific rubber boa (<i>Charina bottae bottae</i>)	C	R,yI,H,B	15a,9
<u>Colubridae</u>			
Western yellowbelly racer (<i>Coluber mormon</i>)	C	R,yI,H,B	9,15a,10
Red coachwhip (<i>Masticophis flagellum piceus</i>)	C,D,E,F,G	C,yI,H,B	9,15a,10,16a,b,c,15c
Striped whipsnake (<i>Masticophis taeniatus</i>)	C,D,F	FC,yI,H,B	9,15a,10,16,7,15c
Mojave patch-nosed snake (<i>Salvadora moiavensis</i>)	D,E,F	R,yI,H,B	9,15a
Great Basin gopher snake (<i>Pituophis melanoleucus deserticola</i>)	C,D,E,F,G	C,yI,H,B	15a+b,16,9

Appendix C-4

	<u>Habitat Types</u>	<u>Abundance & Occurrence</u>	<u>Foods (in decreasing order of importance)</u>
California kingsnake (<i>Lampropeltis setulus californiae</i>)	B,C,D,E,F,G	FC,yl,H,B	9,16c,15a,10,16aFb
Glossy Snake (<i>Arizoria elegans</i>)			
Western long-nosed snake (<i>Rhinocheilus lecontei lecontei</i>)	D,E,F	U,yl,N,H,B	9,15a,7
Sierra garter snake (<i>Thamnophis couchi couchi</i>)	C,F*	R,yl,H,B	8,10,13a,7,6,15a,16
Mountain garter snake (<i>Thamnophis elegans elegans</i>)	C*	U,yl,H,B	8,10,13a,7,6,15a,16
Ground snake (<i>Sonora semiannulata</i>)	F	R,yl,N,H,B	7,14
Desert night snake (<i>Hypsiglena torquata deserticola</i>)	C,E,F	R,yl,N,H,B	9,10,7,6
<u>Viperidae</u>			
Mojave desert sidewinder (<i>Crotalus cerastes cerastes</i>)	B,F	FC,yl,N,H,B	15a,9,16a+b
Great Basin rattlesnake (<i>Crotalus viridis lutosus</i>)	C,E,F	U,yl,H,B	15a,16a+b,9
Speckled rattlesnake (<i>Crotalus mitchelli</i>)			
Mojave rattlesnake (<i>Crotalus scutulatus</i>)			
AMPHIBIANS			
<u>Pelobatidae</u>			
Great Basin spadefoot toad (<i>Scaphiopus intermontanus</i>)	B,C,D,E	FC,yl,N,H,B	7
<u>Bufo</u>			
California toad (<i>Bufo boreas halophilus</i>)	B,C	R,yl,N,H,B	7,12,11a,14
Red-spotted toad (<i>Bufo punctatus</i>)			
<u>Hylidae</u>			
Pacific treefrog (<i>Hyla regilla</i>)	B,C	R,yl,H,B	7,14,11a
<u>Ranidae</u>			
Leopard frog (<i>Rana pipiens</i>)	A,B,C,D	U,yl,H,B	7,14,11a
Bullfrog (<i>Rana catesbeiana</i>)	A,B	C,yl,H,B	7,8,10,9,16a,15a
FISHES			
<u>Salmonidae</u>			
Rainbow trout (<i>Salmo gairdneri</i>)	A	C	6,3b,8
Brown trout (<i>Salmo trutta</i>)	A	C	6,3b,8



Appendix D

List of Abbreviations



APPENDIX D
LIST OF ABBREVIATIONS

AC	Acres
AC-FT	Acre-Feet
A-E	Arvin-Edison
AF	Acre-Feet
AFY	Acre-Feet per Year
BIA	Bureau of Indian Affairs
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CIMIS	California Irrigation Management System
CFS	Cubic Feet per Second
CM	Centimeter, Centimeters
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CVP	Central Valley Project
DEIR	Draft Environmental Impact Report
DWR	Department of Water Resources
EIR	Environmental Impact Report
E/M	Enhancement/Mitigation
EPA	Environmental Protection Agency
ET	Evapotranspiration
F	Fahrenheit
FT	Feet
FT ²	Square Feet
GBUAPCD	Great Basin Unified Air Pollution Control District
GBVAB	Great Basin Valley Air Basin

GW	Ground Water
IID	Imperial Irrigation District
KWH	Kilowatt-Hours
KWH/AF	Kilowatt-Hours per Acre-Foot
LA	Los Angeles
LAA	Los Angeles Aqueduct
LACFCD	Los Angeles County Flood Control District
LADWP	Los Angeles Department of Water and Power
MW	Megawatts
MWH	Megawatt-Hours
MG/L	Milligrams per Liter
MWD	Metropolitan Water District
NE	Northeast
OWR	Office of Water Reclamation
PH.D	Doctor of Philosophy
PM ₁₀	Particulate Matter less than 10 microns in diameter
PPM	Parts per Million
SIP	State Implementation Plan
SWP	State Water Project
SWRCB	State Water Resources Control Board
TSP	Total Suspended Particulate
UCLA	University of California, Los Angeles
UG/M ³	Micrograms per Cubic Meter
USGS	United States Geological Survey
VGS	Valley Generating Station

ABBREVIATIONS - AGREEMENT

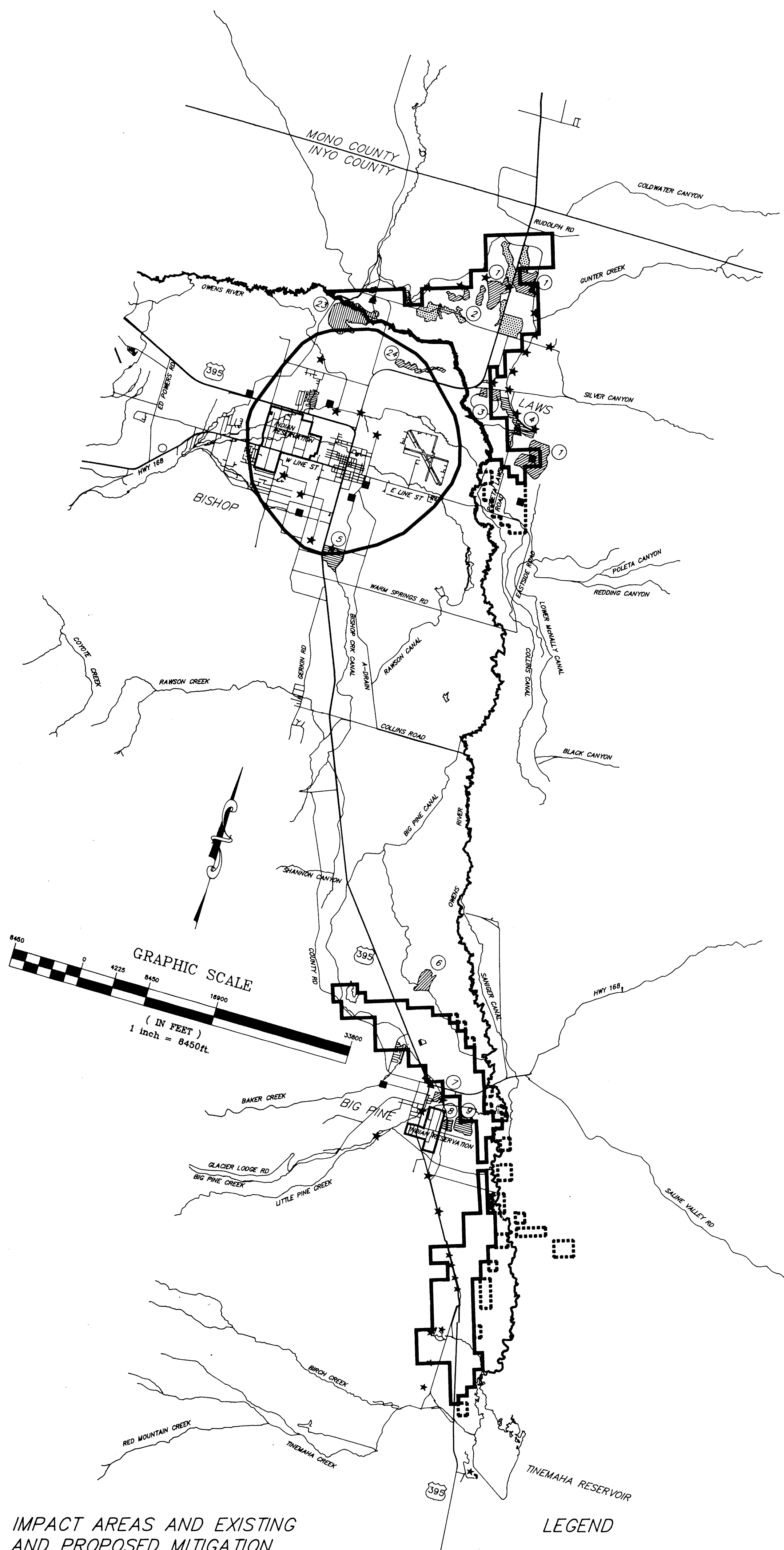
CEQA	California Environmental Quality Act
CFS	Cubic Feet per Second
EIR	Environmental Impact Report
USGS	United States Geological Survey

ABBREVIATIONS - GREEN BOOK

ARTNT	<i>Artemisia tridentata</i>
ATCO	<i>Atriplex confertifolia</i>
ATTO	<i>Atriplex torreyi</i>
AWC	Plant-available Soil Water Content
CELA	<i>Ceratoides lanata</i>
CHNA	<i>Chrysothamnus nauseosus</i>
CV	Coefficient of Variance
DISP	<i>Distichlis spicata</i>
DOY	Day of Year
DWP	Department of Water and Power
EIR	Environmental Impact Report
ET	Evapotranspiration
GIS	Geographical Information System
GRSP	<i>Grayia spinosa</i>
IRAG	Irrigated Agriculture
LADWP	Los Angeles Department of Water and Power
LAI	Leaf Area Index
LWC	Limiting Water Content
M	Meter, Meters
MED	Maximum Effective Rooting Depth
NDDB	Natural Diversity Data Base
SAGOV	<i>Salix gooddingii</i>
SALIX	<i>Salix</i>
SAVE	<i>Sarcobatus vermiculatus</i>
SCS	Soil Conservation Service
SPAI	<i>Sporobolus airoides</i>
TARA	<i>Tamarix ramosissima</i>
TEAX	<i>Tetradymia axillaris</i>
URBAN	Urban
USDA	United States Department of Agriculture
USGS	United States Geological Survey



Impact and Mitigation Areas Map



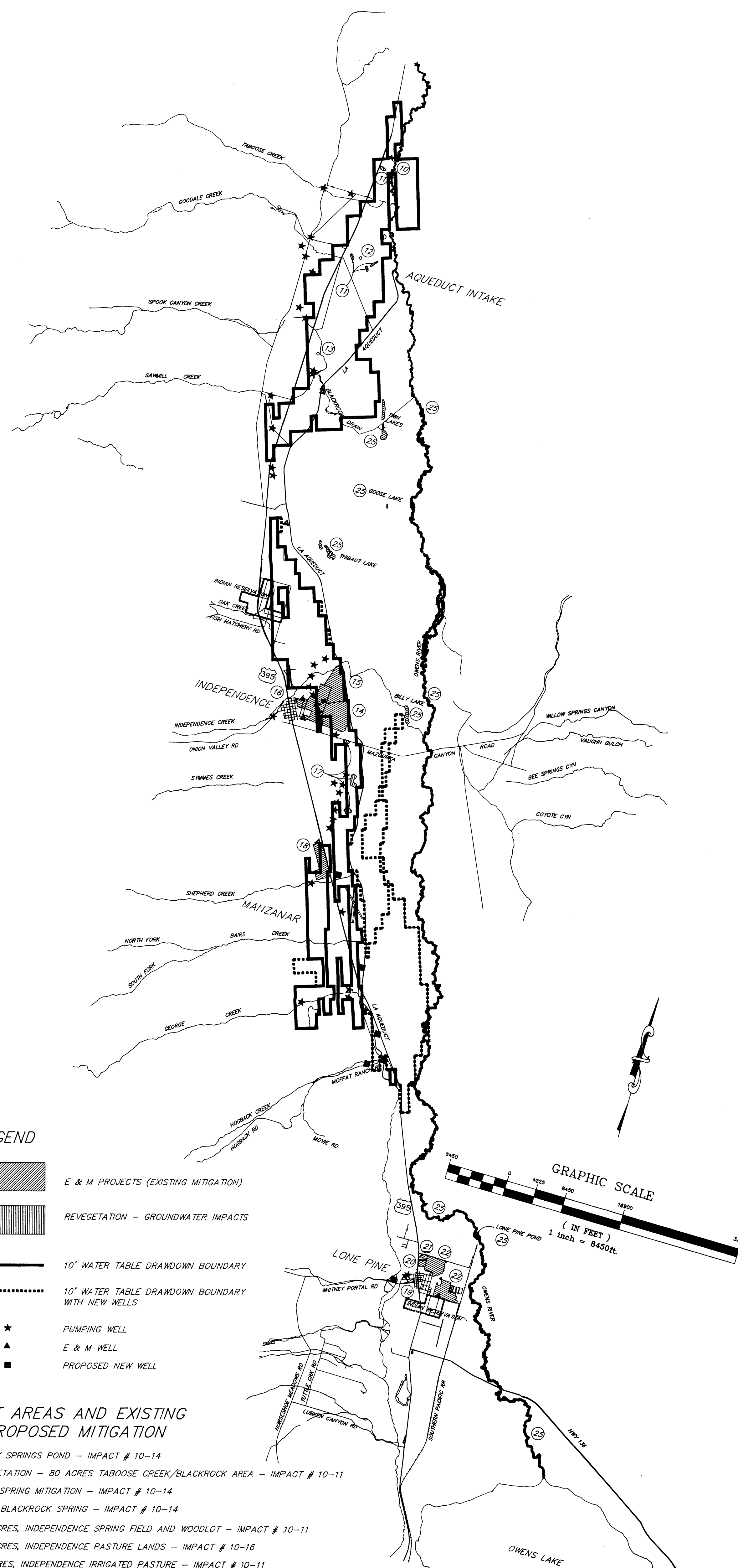
IMPACT AREAS AND EXISTING AND PROPOSED MITIGATION

- ① 520 ACRES LAWS/POLETA PASTURE LAND - IMPACT # 10-18
- ② McNALLY PONDS - IMPACT # 10-18
- ③ 21 ACRES LAWS MUSEUM - IMPACT # 10-18
- ④ REVEGETATION - 140 ACRES IN THE LAWS AREA - IMPACT # 10-18
- ⑤ REVEGETATION - 120 ACRES SOUTH OF BISHOP - IMPACT # 10-16
- ⑥ KLONDIKE LAKE - IMPACT # 10-5, 11-1
- ⑦ 30 ACRES, BIG PINE IRRIGATED PASTURE - IMPACT # 10-11
- ⑧ REVEGETATION - 20 ACRES EAST OF BIG PINE - IMPACT # 10-19
- ⑨ REVEGETATION - 160 ACRES IN BIG PINE AREA - IMPACT # 10-19
- ⑩ REVEGETATION - 300 ACRES, FIVE BRIDGES - IMPACT # 10-12
- ⑪ FARMERS POND - IMPACT # 10-18

LEGEND

- E & M PROJECTS (EXISTING MITIGATION)
- REVEGETATION - GROUNDWATER IMPACTS
- REVEGETATION - SURFACE WATER IMPACTS
- POTENTIAL MITIGATION
- 10' WATER TABLE DRAWDOWN BOUNDARY
- 10' WATER TABLE DRAWDOWN BOUNDARY WITH NEW WELLS
- PUMPING WELL
- E & M WELL
- PROPOSED NEW WELL

IMPACT AND MITIGATION AREAS AND 10' WATER TABLE DRAWDOWN BOUNDARY OWENS VALLEY - NORTH HALF



LEGEND

- E & M PROJECTS (EXISTING MITIGATION)
- REVEGETATION - GROUNDWATER IMPACTS
- 10' WATER TABLE DRAWDOWN BOUNDARY
- 10' WATER TABLE DRAWDOWN BOUNDARY WITH NEW WELLS
- PUMPING WELL
- E & M WELL
- PROPOSED NEW WELL

IMPACT AREAS AND EXISTING AND PROPOSED MITIGATION

- ⑩ SEELEY SPRINGS POND - IMPACT # 10-14
- ⑪ REVEGETATION - 80 ACRES TABOOSE CREEK/BLACKROCK AREA - IMPACT # 10-11
- ⑫ HINES SPRING MITIGATION - IMPACT # 10-14
- ⑬ LITTLE BLACKROCK SPRING - IMPACT # 10-14
- ⑭ 317 ACRES, INDEPENDENCE SPRING FIELD AND WOODLOT - IMPACT # 10-11
- ⑮ 610 ACRES, INDEPENDENCE PASTURE LANDS - IMPACT # 10-16
- ⑯ 30 ACRES, INDEPENDENCE IRRIGATED PASTURE - IMPACT # 10-11
- ⑰ 60 ACRES, SYMMES/SHEPHERD REVEGETATION - IMPACT # 10-13
- ⑱ 198 ACRES, SHEPHERD CREEK - IMPACT # 10-11
- ⑲ 7 ACRES AT WHITNEY PORTAL ROAD - IMPACT # 10-16
- ⑳ 12 ACRES, LONE PINE WOOD LOT - IMPACT # 10-16
- ㉑ 11 ACRES NORTHEAST OF LONE PINE - IMPACT # 10-16
- ㉒ 320 ACRES, VAN NORMAN AND RICHARDS FIELDS - IMPACT # 10-16
- ㉓ LOWER OWENS RIVER PROJECT - IMPACT # 9-3, 10-8, 10-14, 10-17, 10-20

IMPACT AND MITIGATION AREAS AND 10' WATER TABLE DRAWDOWN BOUNDARY OWENS VALLEY - SOUTH HALF

