

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

VOLUME I

**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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1. INTRODUCTION

1. INTRODUCTION

1.1 PURPOSE AND INTENDED USE OF THE EIR

These Response to Comments and Revisions to the Draft EIR volumes, together with the Draft EIR and its appendices, constitute the Final Environmental Impact Report (EIR) for the project known as Water from the Owens Valley to Supply the Second Los Angeles Aqueduct. This is a program EIR. A program EIR addresses the environmental consequences of a plan or program. This EIR addresses the overall environmental consequences of increased water gathering since 1970 on the Owens Valley environment, the installation of certain facilities, and actions identified in the Agreement on a Long-Term Groundwater Management Plan for Owens Valley and Inyo County (Agreement). However, certain actions under the Agreement, which have not yet been defined and will not be implemented at this stage of the project, will be addressed in future environmental review as allowed by CEQA.

This EIR will be used for different purposes by Los Angeles, as lead agency, and Inyo County, as a responsible agency. In order for Los Angeles to comply with the informational requirements of CEQA as mandated by the Court of Appeal for the Third Appellate District, this EIR must examine the environmental effects of all water management practices and facilities that have been or will be implemented or constructed in Owens Valley to supply water to the second aqueduct, including increased groundwater pumping. Inyo County, in its role as a responsible agency, will use the EIR to assist it in deciding whether to give final approval to the Agreement. In this way, the EIR fulfills the informational requirements of CEQA, the Court, Inyo County, Los Angeles, LADWP, and the public.

1.2 FINAL EIR PROCESS

The Draft EIR was published in September 1990 and circulated for review and comment by the public and interested parties, agencies, and organizations until January 28, 1991. Five public meetings were conducted by EIP Associates in the Owens Valley and in Los Angeles in December 1990. All verbal comments received at the public meetings were transcribed by a certified court reporter. Written comments on the Draft EIR were also received by EIP Associates during the public review period.

Written comments were received from 17 government agencies, 20 organizations and institutions, and 95 individuals. The letters are divided into five categories: Federal and State Agencies, Local Agencies, Organizations and Institutions, Individuals, and the transcripts of the public meetings. The interest of the general public in the project is reflected in the great number of comments that were received on the Draft EIR.

The Response to Comments document of this Final EIR has been prepared in response to verbal and written comments received during the public review period. The Final EIR will be available for public review beginning August 1991 prior to consideration by Los Angeles and Inyo County. Both agencies will review and consider the Final EIR prior to their decision to approve the EIR. Under existing Court orders, the Final EIR must be submitted to the Court of Appeal for the Third Appellate District in Sacramento.

Before approving the project analyzed in this EIR and submitting the EIR to the court, Los Angeles and Inyo County each must "certify" the Final EIR. Certification consists of two separate steps: Each agency's governing body must conclude first, that the document has been completed in compliance with CEQA, and second, that the body has reviewed and considered the information within the EIR prior to approving the project.

After review and consideration of the Final EIR, Los Angeles and Inyo County may approve the EIR. To do so requires preparation of written findings by Los Angeles for each significant adverse environmental effect identified in the Draft EIR. Inyo County will only prepare findings on each significant adverse environmental impact identified for the Agreement -- an element of the overall project -- since Inyo County can only approve or disapprove the Agreement element. Findings

must be accompanied by a brief explanation of the rationale for each finding and should indicate either 1) that mitigation measures to reduce adverse impacts to less than significant levels have been adopted; 2) that measures to mitigate specific effects are not within the jurisdiction of the agency making the finding; or 3) that specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR, but the project is acceptable because overriding considerations indicate that the benefits of the project outweigh its adverse effects.

An additional requirement is that, when making findings, a monitoring program must be adopted and incorporated into the approved project for mitigation measures that reduce or avoid significant effects on the environment. This reporting or monitoring program would be designed to ensure CEQA compliance during project implementation. The reporting or monitoring program (Public Resources Code 21081.6) was added to CEQA in 1988 by Assembly Bill 3180 (Cortese).

Once the Final EIR has been certified, the governing bodies will consider approval of the project. If, after consideration, each of the governing bodies (the Los Angeles Board of Water and Power Commissioners; the Los Angeles City Council; the Los Angeles Department of Water and Power; and the Inyo County Board of Supervisors) certifies the EIR and approves the project, the necessary legal documents, including this EIR, will be filed with the appropriate courts.

After certification of the Final EIR, Los Angeles and Inyo County must each file a Notice of Determination. The Notice of Determination is a formal legal notification of the approval of the Final EIR. The filing of this notice initiates a 30-day statute of limitations period for challenging approval of the Final EIR under CEQA.

If the Court of Appeal for the Third Appellate District approves a request to discharge writ as satisfied, the environmental litigation between Inyo County and the City of Los Angeles, which commenced in 1972, will be resolved. If the Inyo County Superior Court approves a Stipulation and Order (setting forth the Agreement), that Court will enter an order withholding final judgment in the City of Los Angeles' legal challenge to the groundwater management ordinance adopted by Inyo County voters in 1980, and setting forth the provisions of the long-term groundwater management plan.

1.3 RESPONSE TO COMMENTS DOCUMENT

This Response to Comments document is divided into five sections: Introduction, Master Comments and Responses, Revisions to the Agreement and Draft EIR, Letter Comments and Responses, and the Appendices.

The Introduction is Chapter 1 of this document. It notes the purpose and intended use of the EIR, the environmental review process, and the contents of the Response to Comments document.

Chapter 2, Master Comments and Responses, addresses comments expressed by many people or which are broad in scope. Master comments have been paraphrased from the individual comments.

The Revisions to the Agreement and Draft EIR, Chapter 3, includes changes made to the Agreement and Draft EIR in response to public comments. The new text or revised text of the Agreement and Draft EIR is identified following the page, paragraph and sentence number in which the text originally occurred.

Chapter 4, Letter Comments and Responses, includes the list of letters from agencies, individuals and groups who submitted written comments, with a number designation for each letter to allow the reader to refer quickly to a letter of interest and to review the responses prepared for individual comments. Chapter 4 also includes a reproduction of each letter received during the public review period for the Draft EIR, transcripts of the public meetings held in Owens Valley and Los Angeles in December 1990, and responses to comments contained in letters and meeting transcripts. Comments contained in the letters and transcripts have been bracketed and numbered in either the left or right margin. The numbers correspond to numbers in the response sections that follow each letter transcript. Responses to all comments contained in each letter follow at the end of that letter.

Individual responses have been prepared for each comment. Where appropriate, the response may also refer the reader to a response to a master comment or a response to another comment, or it may clarify where information requested in the comment can be found within the text of the Draft EIR. In some instances, comments have been offered in the form of personal opinions on matters that do not pertain to the content of the Draft EIR or the proposed project under review.

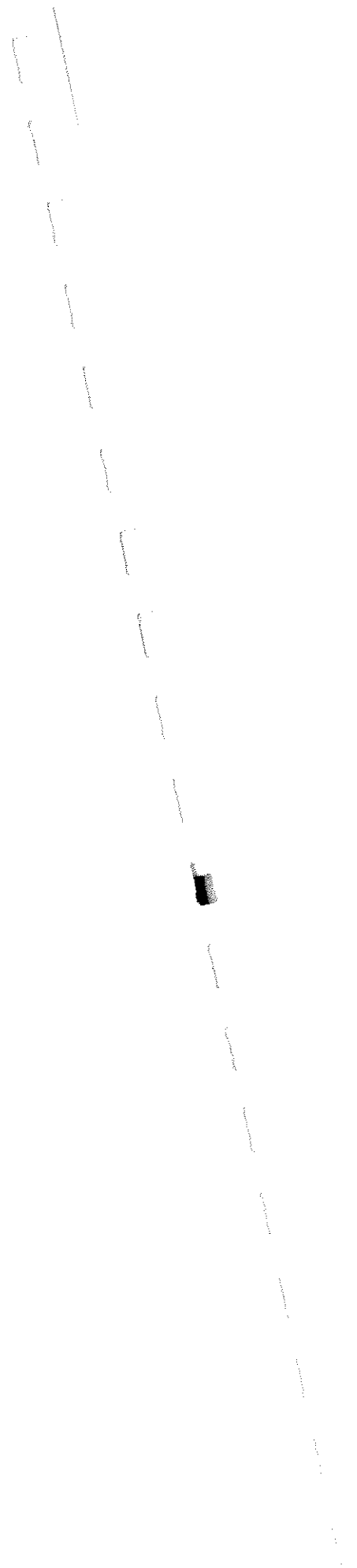
In such instances, the comment is noted, and an explanatory response is provided indicating why the particular issue does not require further response. In all cases, a good faith effort has been made to respond to the questions or issues raised in each letter.

The Appendices section contains 15 appendices, providing supporting information for responses in this document or in response to comments. A list of the appendices is presented in Table of Contents.

If you feel that there are environmental concerns that have not been fully addressed by either this Response to Comments document or the September 1990 Draft EIR, please identify those concerns when commenting on the Final EIR document, and submit those comments to EIP Associates at the address below. Such comments will be submitted to Los Angeles and Inyo County for consideration.

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

2. MASTER COMMENTS AND RESPONSES



2. MASTER COMMENTS AND RESPONSES

2.1 PURPOSE OF MASTER COMMENTS AND RESPONSES

This chapter presents the master comments and responses. Since publication of the Draft EIR in September 1990, a great number of written and oral comments were received on the Draft EIR, Green Book, and Agreement. At the close of the comment period on January 28, 1991, EIP Associates and the Technical Group reviewed the written comments and oral testimony received during the public review period. The public's interest in the project is reflected in the great number of comments received. Those comments expressed frequently were identified as "master comments." An index to master comments is presented in Table 2-1. The master comments are organized to generally follow the order of the Draft EIR. Responses to the master comments are presented in Section 2.2. These responses are intended to be comprehensive and detailed. Readers are still encouraged to review individual letters of interest in Chapter 4, Letter Comments and Responses, for responses to individual comments.

2.2 RESPONSES TO MASTER COMMENTS

PROPOSED PROJECT

COMMENT PD-1

Some form of the project has been in operation for twenty years. This should make the EIR invalid.

RESPONSE PD-1

As described in Chapter 1, Introduction, and Chapter 2, History of Water Development in Owens Valley, the second Los Angeles Aqueduct began operation in June 1970. In November 1972, Inyo County filed a lawsuit claiming that Los Angeles' operation in supplying the second aqueduct, including increased groundwater pumping, was harming the environment of the Owens Valley and

TABLE 2-1
INDEX OF MASTER COMMENTS

PROPOSED PROJECT

- | | |
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| PD-1 | Some form of the project has been in operation for twenty years. This should make the EIR invalid. |
| PD-2 | The complexity of the water system and the range of in-valley uses makes it difficult to evaluate the impact analysis. |
| PD-3 | The exclusion of the Mono Basin and Owens Dry Lake from the EIR makes the EIR invalid because CEQA does not allow "piecemeal" projects. |
| PD-4 | The Agreement will exacerbate already dangerously low groundwater levels. No new wells should be allowed. |
| PD-5 | The Agreement lacks specific protections of remaining springs and seeps and should be amended to include this. |
| PD-6 | Unilateral well turn on/off by Los Angeles is not acceptable. |
| PD-7 | Monitoring under the Green Book should include other parties and not exclusively LADWP and Inyo County such as the Farm Bureau, U.C. Cooperative Extension, environmentalists, technical specialists, Indian tribes, and lessees. |
| PD-8 | Indian tribes are not parties to the Agreement and are not bound by its provisions. Tribal lands are not protected under the Agreement. |
| PD-9 | Impacts on Indian lands and water rights caused by the project are not addressed in the EIR as required by CEQA. The Draft EIR misstated the amounts and types of Indian water rights in an attempt to narrow the scope of the project and the EIR. |
| PD-10 | No standard, other than that of CEQA, for determining significant effects on the environment can be imposed on Indian lands. |
| PD-11 | No Inyo County money should be spent in the Agreement (e.g. the Lower Owens River Project) for impacts caused by Los Angeles. |
| PD-12 | How can the groundwater mining provision of the Agreement prevent groundwater mining when outflows from the system, such as evapotranspiration and underflow, are not quantified or apparently considered? The groundwater mining provision is also inadequate because the 20 year period is too long. |

Table 2-1 (Cont'd)

	Mining could still occur during a shorter time frame, especially during prolonged drought.
PD-13	The pumping on the Bishop Cone that would be allowed under the Agreement would be for export and thus in violation of the Hillside Decree.
PD-14	The Agreement lacks a comprehensive grazing management program that is subject to CEQA review. Not enough information is provided on the grazing management program described in the Draft EIR.
PD-15	The release of Los Angeles-owned lands for development would result in destruction of wetlands.
PD-16	Haiwee Reservoir/Dam should not be included in the EIR as a benefit to Inyo County because of seismic and safety problems. Haiwee Reservoir/Dam should be deleted from the Agreement.
PD-17	The Drought Recovery Policy should be strengthened to cause recovery of soil moisture to the estimated needs of the vegetation at the time it was inventoried between 1984 and 1987.
PD-18	How will significance be interpreted under the Agreement? The term significant should be clearly defined.

ALTERNATIVES

AL-1	The alternatives in the Draft EIR are not genuine, but are "variations on a theme" and thus do not meet CEQA.
AL-2	The analyses on desalination and wastewater reclamation are biased, and overstate the negative impacts associated with each, while underestimating benefits. These two measures alone could preclude any groundwater pumping in Owens Valley.
AL-3	The alternatives analysis indicates that the additional water supplied by the project is only 42,000 acre-feet per year over pre-project levels, or six percent of Los Angeles's supply. Los Angeles could certainly conserve six percent as a way of avoiding any further groundwater pumping in the Owens Valley.
AL-4	The alternatives analysis should evaluate a pipeline from the northwest region to northern California as a potential new water supply.

Table 2-1 (Cont'd)

ENVIRONMENTAL ANALYSES

Pre-Project Conditions

- EA-1 The description of pre-project vegetation conditions should be improved. It should include a pre-project vegetation map, an estimate of the number of acres of each vegetation type that existed in the Owens Valley prior to 1970, descriptions of the pre-project conditions of rare plant and animal species, and the pre-project aerial extent of all springs, seeps and marshes.

Geology

- G-1 Verify that subsidence has not occurred due to groundwater pumping.
- G-2 Geology of Owens Valley is not properly described. More information about the Pleistocene period needs to be included.

Water Resources

- WA-1 The conclusion of "no significant impacts" on water resources should be disputed, especially for private wells, springs, seeps, and abandoned canals. Water has been lost from these facilities or natural areas.
- WA-2 The water quality discussion is inadequate because it does not provide enough information on pathogens, heavy metals and other types of pollutants.
- WA-3 In-valley water uses versus export are not well defined due to commingling of water in the aqueduct system.
- WA-4 Preserve Reinhackle Spring because it is the last of its kind in the Valley.
- WA-5 Expand discussion on response of water levels to pumping to further demonstrate how quickly or slowly water levels would return to pre-pumping levels.

Vegetation

- VE-1 The Agreement allows for changes from one vegetation community to another within a vegetation management type. However, such changes could, in fact, result in significant adverse impacts to plant and/or wildlife species. Within Type E management classification, native pasture should not be allowed to be converted to alfalfa. The Agreement should be modified to prevent these impacts.

Table 2-1 (Cont'd)

VE-2	Portions of the analysis of vegetation impacts are site-specific, and some portions are not. Additional site-specific information is needed to better understand impacts on vegetation.
VE-3	Impacts of groundwater pumping are understated. The 1981 Inyo County report mapped 25,000 acres as being affected by groundwater pumping. Why the discrepancy in the Draft EIR? What happened since 1981?
VE-4	A decrease of 40,000 acre-feet per year in evapotranspiration referenced in the Draft EIR is a significant impact and must be specifically addressed in the Final EIR.
VE-5	Use the Jaques report on aerial photo interpretation for pre-project and vegetation impact analysis.
VE-6	Inventory and map rare plant species. The listing in the Draft EIR is incomplete. LADWP should have a management plan for rare and endangered plants.
VE-7	Description of secondary effects of saltcedar eradication/control is inadequate. What happens to other vegetation when saltcedar is removed?
VE-8	The impact analysis in the Draft EIR did not include an area of approximately 300 acres north of the Owens River near Laws that has been severely impacted by groundwater pumping since 1970.
Wildlife	
WL-1	The listing of birds in the wildlife chapter is both inaccurate and incomplete. The listing of birds should be updated to reflect new names of some bird species, and to include the most recent data on bird sightings.
WL-2	Historical references pertaining to lesser wildlife abundance are not documented in the Draft EIR.
WL-3	The listing of animal species of special concern contained in Table 11-5 of the September 1990 Draft EIR is incomplete. Please refer to the listing provided by the California Department of Fish and Game.
WL-4	Past USGS and California Fish and Game reports (pre-1970) should be used to help establish pre-project conditions.

Table 2-1 (Cont'd)

WL-5 The Draft EIR should have included a Habitat Evaluation Procedure (HEP) to quantify changes to wildlife habitat, and indirectly serve as estimate of change in wildlife populations.

WL-6 Does the Los Angeles Department of Water and Power monitor wildlife on their lands. If so, how?

E. Air Quality

AQ-1 The Draft EIR should have included the Owens dry Lake dust problem as a cumulative air quality impact since this is the major source of PM-10 in Inyo County.

Energy

EN-1 The energy analysis is not detailed enough. What about energy savings if groundwater pumping were discontinued?

Cultural Resources

CL-1 Impacts due to new wells and recharge basins or infiltration trenches are understated. More extensive archaeological resources exist than have been described in the Draft EIR.

CL-2 The archaeological investigation of the Draft EIR should have included subsurface testing. Its omission makes the analysis in the Draft EIR inadequate.

CL-3 Indian tribes should have been consulted during preparation of the Draft EIR to ascertain existence of unrecorded resources. Local cultural resources have been impacted by past water gathering activities, and will continue to be impacted by water gathering in the future.

Ancillary Facilities

AF-1 Analysis of ancillary facilities is not detailed enough and thus is inadequate. More information is needed on the precise location of new wells, and new or enlarged recharge basins.

AF-2 No new wells should be drilled at or near Reinhackle Spring, Lone Pine Tree, and other sensitive areas.

Table 2-1 (Cont'd)

MITIGATION

- | | |
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| MT-1 | There have been problems with past mitigation effort by Los Angeles, and some of the efforts were not effective. |
| MT-2 | Mitigations in the Green Book are experimental and thus not assured of mitigating effects on the environment. What happens if efforts are unsuccessful? |
| MT-3 | Off-site compensatory mitigation must not be accepted when it has not been conclusively demonstrated that on-site, in-kind mitigation is infeasible. |
| MT-4 | Mitigation programs should not be allowed to be discontinued upon mutual consent of Los Angeles and Inyo County, as provided in Section X. Enhancement/Mitigation Projects of the Agreement. |
| MT-5 | All cumulative impacts, including those impacts associated with the first Los Angeles Aqueduct must be mitigated in this EIR. |
| MT-6 | The description of Lower Owens River project is inadequate. It is not acceptable for impacts on springs, seeps, and wetlands due to the second aqueduct. It is not acceptable for impacts on springs, seeps, and wetlands due to the second aqueduct. |
| MT-7 | How was it determined that a significant effect on the environment was reduced to a less than significant level through mitigation? |
| MT-8 | The Draft EIR does not adequately discuss the alternatives to the mitigation measures identified for each significant effect of the project from 1970 to 1990 and the reason for selecting a particular measure. |

SUMMARY

- | | |
|-----|--|
| S-1 | The Draft EIR Summary makes it unclear whether, under the vegetation management goals of the Agreement, the 1984-87 period or the 1981-82 period serves as the base of comparison for determining decreases and changes in vegetation. |
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that the practice should be analyzed in an Environmental Impact Report (EIR) in accordance with the provisions of the California Environmental Quality Act (CEQA). In 1973, the Third District Court of Appeal ruled that Los Angeles must prepare an EIR on a project of increased groundwater pumping. Accordingly, Los Angeles prepared two EIRs, one in 1976 and another in 1979, but the Court found both to be inadequate.

In 1984, Inyo County and Los Angeles entered into a five-year interim agreement that suspended litigation and, through cooperative studies and development of a long-term groundwater management plan, sought a permanent resolution of the disputes between the parties. In approving this interim agreement, the Court said that its order to prepare an EIR could be fulfilled if the EIR is presented to the Court in conjunction with such a joint plan. Los Angeles and Inyo County have prepared a long-term groundwater management plan (Agreement). This EIR, which is presented in conjunction with the joint plan, represents a third effort to satisfy the information requirements of CEQA as required by the Court. Therefore, although the EIR is being prepared 20 years after initial operation of the project, its preparation is in accordance with the orders of the Third Appellate Court, which has extended the time to prepare the EIR.

COMMENT PD-2

The complexity of the water system and the range of in-valley uses makes it difficult to evaluate the impact analysis.

RESPONSE PD-2

Los Angeles and Inyo County acknowledge that the water system and range of in-valley uses are complex, therefore, the analysis of impacts of these elements is complex. Every effort has been made to simplify the analysis.

COMMENT PD-3

The exclusion of the Mono Basin and Owens Dry Lake from the EIR makes the EIR invalid because CEQA does not allow "piecemeal" projects.

RESPONSE PD-3

Mono Basin

The scope of this EIR was shaped in part by court decisions related to litigation between Inyo County and Los Angeles. As a result of court decisions, Los Angeles was specifically directed to prepare an EIR on the effects of groundwater pumping on the Owens Valley. This direction did not include the Mono Basin, located in Mono County. The project as defined concerns water gathering in the Owens Valley and, in particular, increased groundwater pumping by LADWP. The Mono Basin water supply to Los Angeles is not physically or technically related to water gathering in the Owens Valley. Water gathered in the Mono Basin passes through the Owens Valley in the Owens River and the Los Angeles Aqueduct. According to the terms of the Agreement, the amount of water Los Angeles may obtain in the Owens Valley will be determined by factors independent from Mono Basin water. The abundance or scarcity of water in the Mono Basin has no effect on the proposed project in the Owens Valley.

As described in the Draft EIR in Chapter 1, Introduction, on page 1-5, paragraph 2, the effects of Los Angeles' water gathering activities in the Mono Basin are to be addressed in an EIR being prepared by the State Water Resources Control Board.

Owens Dry Lake

Owens Lake was dry by 1924 as a result of the operation of the first Los Angeles Aqueduct. The drying of Owens Lake predates the operation of the second Los Angeles Aqueduct by nearly 50 years, and thus falls outside the scope of the project covered by this EIR, which evaluates the environmental impacts of water gathering since 1970. However, Owens Lake is discussed in the pre-project setting section, which this EIR uses to consider whether or not there are significant adverse impacts upon the environment caused by the project, and in the cumulative impact analysis. Please refer to response to master comment AQ-1 regarding Owens Lake and cumulative impacts.

Although it is concluded that the condition of Owens Dry Lake is not affected by the project, it should be emphasized that mitigation of the Owens Dry Lake dust problem is currently the subject of a separate multi-agency study headed by the Great Basin Unified Air Pollution Control District, with financial support from the State Lands Commission and LADWP.

COMMENT PD-4

The Agreement will exacerbate already dangerously low groundwater levels. No new wells should be allowed.

RESPONSE PD-4

Low Groundwater Levels

During the first three years of the current prolonged drought, groundwater tables in Owens Valley well field areas were lowered due to low runoff and groundwater pumping. However, during the 1990-1991 runoff year, the annual pumping program developed by Inyo County and LADWP restricted groundwater pumping to 89,500 acre-feet. As a result of this reduction in pumping, there was an increase in groundwater tables in all well field areas. The annual pumping program for the current runoff year calls for the pumping of no more than 87,000 acre-feet of groundwater. With the continuation of reduced pumping, it is projected that groundwater tables in all well field areas will continue to rise during this runoff year.

The Drought Recovery Policy adopted by the Inyo County/Los Angeles Standing Committee, calls for groundwater pumping during this drought and during a period of recovery to be conducted in an environmentally conservative manner as was done in the 1990-91 and 1991-92 runoff years until there has been a substantial recovery in soil moisture and water table conditions in areas of Type B, C and D vegetation. The intent of this policy is to achieve the vegetation protection goals of the Agreement. Please see response to Master Comment PD-17 for additional discussion of the Drought Recovery Policy.

New Wells

Under the Agreement, LADWP will construct up to 15 new wells to facilitate rotational pumping, to increase operational flexibility and to replace existing wells, as described in Chapter 16, Ancillary Facilities, of the Draft EIR. The increased operational flexibility and rotational pumping will provide LADWP with pumping capability that can be "rotated" from one area to another. By having increased pumping capacity, demand can be met while minimizing potential vegetation impacts due to pumping. Any new wells constructed by Los Angeles in the Owens Valley must

be constructed and operated so as not to cause significant decreases and/or changes in vegetation. The guidelines that will be followed in the siting, construction and operation of any new wells are described in Section VI of the Agreement (pages B-29 to B-34), in Section IV.B of the Green Book (pages 97-100) and in Chapter 16, Ancillary Facilities, of the Draft EIR (pages 16-14 to 16-41).

All of the provisions of the Drought Recovery Policy equally apply to all new wells and to existing wells in the Owens Valley. Also, all of the management provisions of the Agreement, including the following, apply to pumping from existing and new wells:

- o Under provisions of the Agreement, groundwater pumping will be managed so as to avoid significant decreases in the live cover of groundwater-dependent vegetation, to avoid a change in a significant amount of such vegetation from one management type to vegetation in another management type that precedes it alphabetically, and to avoid other significant effects on the environment.
- o In addition, the Agreement provides that long-term mining of groundwater will be avoided by managing groundwater pumping so that the total pumping from any well field over a 20-year period (the then current year plus the 19 previous years) does not exceed the total recharge to the same well field area over the same 20-year period.
- o Another goal of the Agreement is to manage groundwater pumping to avoid causing significant adverse impacts to private (non-Los Angeles-owned) wells and to mitigate such impacts if any should occur.
- o Groundwater pumping will be managed to avoid reductions in spring flows that would cause significant decreases and changes in spring associated vegetation. (See response to comment PD-5.) Additionally, groundwater pumping from wells that affect flow from Reinhackle Spring will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. (See response to comment WA-4.) As a result of this management, it is probable that no more than one of the three new wells identified on page 16-29 of the Draft EIR in the vicinity of Reinhackle Spring (ISB-4, 5 and 6) will be constructed as part of the project covered by this EIR.

- o In the Bishop area, groundwater pumping by LADWP on the "Bishop Cone" will be in accordance with the "Hillside Decree." (See Section VII.A of the Agreement at page B-32.) Annual groundwater pumping by LADWP will not exceed the annual amount of water used on Los Angeles-owned lands on the Bishop Cone. Please refer to response to master comment PD-13 regarding the Hillside Decree.

COMMENT PD-5

The Agreement lacks specific protections of remaining springs and seeps and should be amended to include this.

RESPONSE PD-5

For the purposes of this response, the "remaining springs" in the Owens Valley are those springs other than: Fish Springs, Big and Little Seeley Springs, Hines Spring, and Big and Little Blackrock Springs. (Reinhackle Spring is addressed in response to master comment WA-4.) Management provisions for the vegetation associated with these areas can be found in the Agreement and Green Book. Mitigation measures for significant impacts to these areas caused by the project are described in the Impact and Mitigation sections of the Water Resources and Vegetation chapters of the Draft EIR.

Under the provisions of the Agreement and the Green Book, spring flows and vegetation dependent upon such flows will be carefully monitored by the Technical Group. The Green Book contains procedures for determining the effects of groundwater pumping and surface water management practices on spring flow (pages 24-26). Groundwater pumping from existing and new wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring associated vegetation. If despite such management, significant decreases in spring flows occur that could cause significant decreases or changes in vegetation dependent upon such flows, management of groundwater pumping from wells affecting flow from the spring will be modified so that adequate spring flow resumes to supply the vegetation. Also, the Technical Group would determine an appropriate course of action which might include:

- a. temporarily supplying surface water or groundwater of a quality that would restore and sustain the vegetation until adequate spring flow resumes;
- b. revegetating the affected area if necessary.

Concerning seeps, Section I.D.1 of the Green Book (page 31) provides:

Certain vegetation of significant environmental value [is] not shown on the management maps because [it is] not the dominant species. This vegetation will be identified by the Technical Group for monitoring purposes on overlays to the management maps. Areas of this vegetation include riparian vegetation dependent upon springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. The monitoring sites will be located in areas where there is a potential for impact to such vegetation by groundwater pumping or changes in surface water management practices (although certain areas of rare or endangered species will be monitored, these areas will not be publicly identified on the management maps in the interest of protecting such vegetation).

If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices [have] resulted in severe water deficit stress that could cause a significant decrease or change in this vegetation, the Technical Group will take such action as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.

Section I.D.2 (page 32) and Section I.D.3 (page 33) of the Green Book describe how this vegetation will be monitored and how mitigation plans will be developed for this vegetation, if necessary.

COMMENT PD-6

Unilateral well turn on/off by Los Angeles is not acceptable.

RESPONSE PD-6

Section V.C of the Agreement (pages B-26 and B-27) provides:

These provisions do not prohibit the Department from unilaterally implementing such mitigation consistent with these goals and principles as may be necessary to cause an increase in the soil water in the area of a monitoring site prior to, or after the occurrence of a projected soil water deficit. This means that a well that has been turned off, may be turned on to supply water for mitigation in the area of the monitoring site to which it is linked. The area of the monitoring site within which the soil water must recover to the required level will be determined by the Technical Group.

A disagreement over whether wells are to be turned on will be subject to dispute resolution.

In Section I of the Green Book (page 12), the parties have agreed to condition this unilateral right so that it is only available in instances where no significant vegetation decrease or change has occurred. The language of the Green Book reads:

If no significant vegetation decrease or change has occurred, and a well has been turned off because of a projected soil water deficit, such a well may be turned on by [LA]DWP to supply water to increase the available soil water in the area of the monitoring site.

In summary, under the above provisions of the Agreement and Green Book, Los Angeles may unilaterally turn on a well that has been turned off because of a projected soil water deficit only if: 1) no significant vegetation decrease or change has occurred; 2) water from the well will only be used to increase soil moisture in the "area of the monitoring site" or for mitigation in the "area of the monitoring site"; 3) the "area of the monitoring site" has been determined by the Technical Group; and 4) there is no disagreement by the Technical Group over whether the above conditions have been met. The Technical Group must also agree that operation of the well will not result in groundwater mining. Thus, it would appear that the "unilateral right" is very limited.

As stated above, the Technical Group must determine the area of a monitoring site before LADWP can turn a well on to supply water to increase the available soil water. The extent of the area represented by a monitoring site will be made on a case-by-case basis. In determining the boundaries of the area represented by each monitoring site, the Technical Group will consider all relevant factors, including: soil and vegetation characteristics, available soil water, regional hydrology, and groundwater drawdown in the area surrounding the monitoring site. Soil water

within the entire area of the monitoring site must recover to the requisite degree before wells linked to the monitoring site may be turned on.

COMMENT PD-7

Monitoring under the Green Book should include other parties (and not exclusively LADWP and Inyo County) such as the Farm Bureau, U.C. Cooperative Extension, Environmentalists, Technical Specialists, Indian tribes, and lessees.

RESPONSE PD-7

The Agreement and the Green Book provide that groundwater and vegetation monitoring will be jointly conducted by Inyo County and LADWP. Monitoring results will be a part of the summaries of Technical Group and Standing Committee meetings, which are available to the public.

Los Angeles and Inyo County will adopt a mitigation monitoring program at the time of project approval, in accordance with AB3180 (Cortese) which was added to CEQA in 1988. The mitigation monitoring program will give the public the opportunity to observe the procedures proposed for monitoring existing and future mitigation projects.

The Technical Group is responsible for implementation and monitoring of mitigation measures. (See Section I.C.2.c, pages 30 and 31, of the Green Book.) All reports of the Technical Group to the Standing Committee regarding the effectiveness of mitigation measures are part of the summaries of Standing Committee meetings and are available to the public.

In addition, 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.

COMMENT PD-8

Indian tribes are not parties to the Agreement and are not bound by its provisions. Tribal lands are not protected under the Agreement.

RESPONSE PD-8

It is correct that Indian tribes are neither parties to the Agreement nor bound by its provisions; however, it should be stressed that if the Agreement is approved, it will not affect any legal rights or remedies now available to the tribes. Moreover, its environmental protection, private well protection, and other provisions will create new remedies which the tribes may exercise. Under the water management goals of the Agreement, all lands in the Owens Valley, including tribal lands, will receive a greater degree of environmental protection if the Agreement is approved.

Presently, no significant impacts have been observed on tribal lands. However, if now or in the future, a tribe believes that a significant effect has occurred on or off a reservation that is not being properly mitigated, it has the same recourse as all other people under the Agreement to bring the matter to the attention of Los Angeles and Inyo County, and/or the tribe may employ any other available legal right or remedy, including CEQA.

COMMENT PD-9

Impacts on Indian lands and water rights caused by the project are not addressed in the Draft EIR as required by CEQA. The Draft EIR misstated the amounts and types of Indian water rights in an attempt to narrow the scope of the project and the EIR.

RESPONSE PD-9

Impacts to Indian Lands and Water Rights - 1970 to 1990

No significant effects of the project between 1970 and 1990 are identified in the Draft EIR for Indian lands or water rights. Although the Draft EIR does not contain a specific analysis of the effects of the project from 1970 to 1990 on Indian lands and water rights, the same criteria were used as were used elsewhere in the Owens Valley to determine significant effects. In response to this master comment, a more detailed hydrologic analysis of the impacts of groundwater pumping from 1970 to 1990 on the Indian reservations is presented in Appendix A-2. Also, the following analysis of the effects of the project between 1970 and 1990 on Indian lands and water rights is presented below. As a result of these analyses, it has been concluded that the project has had no significant effects on the environments of the reservations.

Bishop and Lone Pine Reservations

The project does not affect or alter Los Angeles' and LADWP's commitment to deliver water to these reservations, nor does it affect or alter their right to divert surface water from streams running through these reservations. It should be noted that it is solely a decision of the reservation and/or its residents whether or not to make use of the available water for irrigation or other purposes. (See discussion below of a 1938 exchange agreement.)

Groundwater pumping under the project from 1970 to 1990 has not significantly affected water tables under these reservations or vegetation dependent on groundwater under these reservations. No significant effects of the project on the environments of these reservations have been identified.

Big Pine Reservation

The project does not affect Los Angeles' and LADWP's commitment to deliver water to this reservation, nor does it affect or alter their right to divert surface water from streams running through the reservation. It should be noted that it is solely a decision of the reservation and/or its residents whether or not to make use of the available water for irrigation or other purposes. (See discussion below of a 1938 exchange agreement.)

The information presented in Appendix A-2 indicates that water table declines in the Big Pine area of approximately five to ten feet, which occurred between 1971 and 1990, were due to drought and groundwater pumping under the project. However, the information presented also shows the ten-foot drawdown contour of water tables for runoff and groundwater pumping conditions under the "worst case" scenario (conditions more severe than occurred between 1971 and 1990 in the Big Pine area) is located to the east of the Big Pine Reservation. Although water tables under this reservation have fluctuated due to drought and the project, no significant effects on the environment of the reservation attributable to groundwater pumping or surface water management by LADWP have been identified.

It has been stated that there were cumulative effects of the project on this and other reservations. This issue is addressed in responses to comments AQ-1 and MT-5.

Based on the information presented in Appendix A-2 and the responses to master comments AQ-1 and MT-5, it is concluded that the project has not caused any significant effects on the environment of this reservation.

Fort Independence Reservation

The project does not affect or alter the rights of this reservation and/or its residents to divert and use water from surface streams or to extract and use groundwater. However, concern has been expressed that groundwater pumping under the project from 1970 to 1990 has lowered water tables under this reservation and caused damage on and in the vicinity of this reservation.

The information presented in Appendix A-2 indicates that drought and groundwater pumping by LADWP during this period has caused the lowering of water tables under this reservation. In addition, Figure A2-4 of Appendix A-2 shows that the ten-foot drawdown contour of water tables under the "worst case" scenario runoff and groundwater pumping conditions is located on the eastern portion of this reservation.

In response to concerns voiced by residents of this reservation, to comments received on the Draft EIR, and to the information presented in Appendix A-2, staff from the Inyo County Water Department, with the permission of the reservation, have monitored and will continue to monitor water table depths on this reservation as part of the effort to determine the extent of the influence of LADWP groundwater pumping in the vicinity of the reservation on these wells. Should it be determined that such groundwater pumping has caused a significant decrease or change in vegetation on the reservation, a significant effect on water levels in reservation wells, or any other significant effect on the environment of this reservation, mitigation will be offered to this reservation to the same extent that mitigation would be implemented under the Agreement and Green Book on lands outside of this reservation, and/or before or after such a determination, the Tribe may employ any other available legal right or remedy, including CEQA.

Although water tables under this reservation have fluctuated due to drought and the project, no significant effects on the environment of this reservation are identified in the Draft EIR. Subject to completion of analysis of the monitoring described above, it is concluded that the project has not had any significant effects on the environment of this reservation.

Impacts to Indian Lands and Water Rights - Agreement (Post-1990)

A primary goal of the Agreement is to manage groundwater pumping and surface water to avoid causing significant decreases and changes in vegetation from the conditions documented during 1984 to 1987. Other goals are to avoid any other significant effects on the environment of the Owens Valley and to avoid impacts to wells not owned by LADWP. These and all other protections of the Agreement are available to Indian lands and water rights to the same extent as they are available to other non-Los Angeles-owned lands in the Owens Valley. In view of these protections, it is concluded that there will be no significant effects to Indian lands and water rights in the future under the Agreement. However, if now or in the future, a Tribe believes that a significant effect has occurred on or off a reservation that is not being properly mitigated, it has the same recourse as all other people under the Agreement to bring the matter to the attention of Los Angeles and the County, and/or the Tribe may employ any other available legal right or remedy, including CEQA.

Alleged Misstatement of Indian Water Rights

No attempt was made to misstate the amount or the type of Indian rights or to limit the scope of the project or the EIR through such misstatement. There may be a difference of opinion between Los Angeles and certain Indian tribes as to the amount and/or the type of Indian water rights. This EIR is not the appropriate forum in which to resolve such differences.

However, in response to comments concerning water rights under a 1938 exchange agreement, Los Angeles believes that the 1938 agreement between the United States and Los Angeles and LADWP transferred water rights from the lands conveyed by the United States to the lands acquired from Los Angeles. Similarly, the water rights attached to the lands conveyed by Los Angeles were transferred to the lands it received from the United States. In furtherance of that transfer and for the several purposes recited in the exchange agreement, Los Angeles agreed to deliver in perpetuity to the United States quantified amounts of water by surface conveyance at the exterior boundaries of the lands acquired by the United States, for use on such lands. The United States was further permitted to divert surface water from streams running through said lands conveyed to the United States, provided that such amounts would be deducted from the surface deliveries Los Angeles and LADWP were obligated to make. Those obligations of Los Angeles

and LADWP to make surface deliveries of water are not affected by the Agreement between Los Angeles and Inyo County. Los Angeles will continue to meet its obligations to deliver water to the Indian Reservation lands described in the exchange agreement pursuant to the terms and conditions of said agreement.

COMMENT PD-10

No standard, other than that of CEQA, for determining significant effects on the environment can be imposed on Indian lands.

RESPONSE PD-10

This comment is correct. The standard for determining significant effects of the project on the environment, both on and off Indian lands, is that prescribed by CEQA. The provisions of CEQA have been employed in determining whether changes caused by the project since the pre-project period are significant and, if so, the level of needed mitigation. The same procedure has been followed with regard to any foreseeable effects of the Agreement.

The Agreement calls for future management to avoid significant effects on the environment. However, if despite such management, significant effects should occur, they will be mitigated as provided in the Agreement and Green Book. If an Indian tribe or any private party believes that a significant effect has occurred which is not properly being mitigated, the provisions of the Agreement may be invoked and/or any other legal rights or remedies, including CEQA, may be employed. Approval of the Agreement will not alter currently existing legal rights and remedies, but creates additional protections which may be invoked.

COMMENT PD-11

No Inyo County money should be spent in the Agreement (e.g. the Lower Owens River Project) for impacts caused by Los Angeles.

RESPONSE PD-11

The only element of the project for which Inyo County is partially financially obligated is the Lower Owens River Project. This element will result in the reestablishment of a permanent year

round flow in the approximately fifty miles of river channel that has been dry since operation of the first Los Angeles Aqueduct began in 1913. This project element will result in the expansion of a warm water fishery, improved riparian habitat, enhanced recreational opportunities and associated increased tourist visitation.

It is estimated that the construction of a pumping system from the river near Keeler Bridge to the Los Angeles Aqueduct, channel modifications, new release structures, and other work will cost approximately \$7.5 million. Los Angeles will fund the entire initial cost of the project. Inyo County, the State of California or other sources are required to repay Los Angeles for one-half of the construction costs, up to a not-to-exceed amount of \$3.75 million.

Inyo County and Los Angeles have been exploring the availability of funding for this project from other agencies, including the State Department of Fish and Game, the State Department of Water Resources, the U.S. Bureau of Reclamation, and the U.S. Corps of Engineers, as well as from private groups such as Ducks Unlimited and fishing groups. Since this unique project will restore such a long reach of river and will create hundreds of acres of riparian habitat, and because it enjoys wide-spread support, it appears that funding for all or a significant portion of the County's share of the project cost can be obtained.

In the event that Inyo County must repay any portion of the project's cost to Los Angeles, the repayment will be deducted at the rate of \$300,000 per year out of the over \$2 million per year that Los Angeles will provide to Inyo County under the Agreement. Inyo County will pay no interest on this sum.

COMMENT PD-12

How can the groundwater mining provision of the Agreement prevent groundwater mining when outflows from the system, such as evapotranspiration and underflow, are not quantified or apparently considered? The groundwater mining provision is also inadequate because the 20 year period is too long. Mining could still occur during a shorter time frame, especially during prolonged drought.

RESPONSE PD-12

Background

When the original draft of the Agreement was released for public review in the Spring of 1989, it contained only a statement that a goal of the Agreement was to avoid groundwater mining. It was believed, and is currently believed, that the goals and management guidelines of the Agreement, including those concerning vegetation protection, impacts to water levels in non-LADWP wells, and groundwater pumping on the Bishop Cone would result in an avoidance of groundwater mining in the Owens Valley.

Following release of the Draft Agreement, concerns were voiced that groundwater mining could occur despite the vegetation protection provisions if a well field area were to be converted entirely to non-groundwater dependent vegetation. Under such a scenario, with vegetation dependent either on irrigation (as would be the case with alfalfa) or precipitation (as would be the case with vegetation not dependent on groundwater), the well on/off provisions designed to protect groundwater dependent vegetation would not restrict groundwater pumping and, consequently, water tables could be continuously lowered in that well field area.

To more clearly express the goal of the Agreement that groundwater mining is to be avoided, even under the improbable scenario described above, additional provisions were added to the Agreement (see page B-12) and the Green Book (see page 100). It must be emphasized that the sole purpose of these provisions is to avoid groundwater mining--not to protect vegetation. Provisions addressing vegetation protection and the avoidance of other impacts attributable to groundwater pumping are set forth in the other goals and management guidelines of the Agreement and Green Book.

The groundwater mining provisions of the Agreement and Green Book are designed to prevent long-term depletion of groundwater in storage (the total water stored in the aquifer system) from occurring in the Owens Valley. To accomplish this purpose, groundwater mining is defined in the Agreement as pumping a greater quantity of groundwater over a 20 year period (the current year plus the previous 19 years) than the total recharge which has occurred in that well field over the same period. Tables showing recharge and pumping figures for the past 20 years are provided in the Green Book.

Following the incorporation of the additional provisions concerning groundwater mining into the Green Book, the United States Geological Survey (USGS) was asked to review it for technical accuracy and agreement with the USGS interpretation of the groundwater system. In a letter dated August 20, 1990 (attached as Appendix A-3), the USGS stated, "In summary, it appears that the discussion in the Green Book that addresses 'Determining the Existence of Groundwater Mining (Pg. 100-116)' is technically defensible and articulately presented."

Evapotranspiration and Underflow

In calculating pumping limits under the groundwater mining provisions, both recharge to and discharge from the valley aquifer system are considered. Recharge is defined as a series of components that add water to the aquifer system (percolation from precipitation, seepage from surface water bodies, groundwater underflow from adjacent areas, artificial recharge, and percolation from irrigation). Discharge is defined as water removed by groundwater pumping. Evapotranspiration losses, groundwater underflow to adjacent areas, and other natural discharges are not considered as components of discharge in the groundwater mining provisions.

There is no reason to consider evapotranspiration as a component of discharge under the scenario described above because, in a well field area with no groundwater dependent vegetation, groundwater would not be removed from storage by evapotranspiration. Under a scenario where there was groundwater dependent vegetation in a well field area, the vegetation protection and other goals and management guidelines of the Agreement and Green Book would result in an avoidance of groundwater mining because of their inherent limitations on pumping.

In regard to groundwater underflow, under a scenario of no groundwater dependent vegetation in a well field area and high rates of groundwater pumping, underflow would be greatly diminished due to the formation of large cones of depression, which would cause groundwater to flow toward the wells. In accordance with the provisions of the Green Book, the Technical Group will monitor water tables, groundwater pumping, and recharge. If, because of a combination of pumping and groundwater underflow, or because of any other factor or combination of factors, it is projected that long-term depletion of storage may occur, the Agreement allows for adjusting the amount of pumping to comply with the goal of avoiding groundwater mining.

Twenty-year Period

The 20-year measuring period for determining avoidance of groundwater mining was chosen because it allows for operational fluctuations in groundwater levels through pumping and recharge, subject to the management constraints of the soil moisture and vegetation protection provisions of the Agreement. If pumping were subject only to groundwater mining provisions (without regard to the other goals and management guidelines), groundwater tables could be lowered for periods of time during a 20-year period due to low runoff and high pumping. However, even under such circumstances, as explained above, long-term depletion of groundwater in storage would not occur as a result of management in accordance with the groundwater mining provisions. This scenario is improbable, though, because a primary goal of the Agreement is to avoid significant decreases and changes in vegetation from conditions documented during the 1984-87 vegetation inventory. Groundwater management pursuant to this goal will further ensure the avoidance of long-term depletion of storage.

Under the Drought Recovery Policy (see response to master comment PD-17) adopted by the Inyo County/Los Angeles Standing Committee, groundwater pumping during this drought and during a period of recovery will be conducted in an environmentally conservative manner as was done in the 1990-91 and 1991-92 runoff years until there has been a substantial recovery in soil moisture and water table conditions in areas of Type B, C, and D vegetation. Although the primary intent of this policy is to achieve the vegetation protection goals of the Agreement, it will also result in the avoidance of groundwater mining during this prolonged drought.

COMMENT PD-13

The pumping on the Bishop Cone that would be allowed under the Agreement would be for export and thus in violation of the Hillside Decree.

RESPONSE PD-13

Section VII.A (page B-32 and B-33) of the Agreement provides that groundwater pumping on the Bishop Cone will be in strict adherence with the Hillside Decree. This comment raises a legal, rather than an environmental, question.

The Hillside Decree is a stipulated judgment agreed to by the parties to the lawsuit of Hillside Water Company v. the City of Los Angeles, 10 Cal. 2d 677. By this stipulation, the parties settled the lawsuit, and the City of Los Angeles agreed that the Superior Court could enter a judgment prohibiting it from pumping, extracting, taking, or transporting out of the Bishop Cone area any subterranean water from beneath the Cone area. The judgement further provided, however, that it did not in any manner prevent Los Angeles from, among other things, using existing drainage ditches to the full extent of their normal capacity, or from pumping groundwater as may be reasonably necessary for beneficial use on City lands located within the Bishop Cone, or of making beneficial use within the Cone of water underlying City lands as are enjoyed by other landowners.

Under the Agreement, annual groundwater pumping by Los Angeles on the Bishop Cone cannot exceed annual water use on Los Angeles-owned lands on the Cone. From a water supply perspective, all wells on the Cone discharge water into ditches, canals, and other conveyance facilities. The beneficial uses of water on Los Angeles-owned lands on the Cone downstream of these wells is now, and will remain in the future, equal to or greater than the amount of groundwater pumped from the wells. Although the groundwater discharged from a well may be commingled in a conveyance facility with surface water, the beneficial uses of the water on the Cone downstream of the well will utilize all of the groundwater pumped upstream from the Cone. Therefore, current and proposed future pumping from the Bishop Cone is and will be in accordance with the Hillside Decree.

Compliance with the Decree will be verified by Inyo County through an annual audit of all groundwater pumping by Los Angeles and all uses on Los Angeles-owned lands on the Bishop Cone.

Some commentators have voiced an opinion that under the "Chandler Decree" of 1922, Los Angeles is prohibited from exporting any water from Bishop Creek out of the Bishop area, and is required to divert and use such water on its lands on the Bishop Cone. Opinions on how a court would rule on this interpretation of the Chandler and Hillside Decrees have been prepared by Professor Joseph Sax of the University of California, an eminent authority on water law and the public trust doctrine, and by Inyo County's Special Legal Counsel, Antonio Rossmann. They have concluded that the Chandler Decree does not prohibit Los Angeles from exporting the waters of Bishop Creek from the Bishop Area, nor does it require Los Angeles to divert and use such waters on its

lands on the Bishop Cone. They also conclude that the Agreement does not violate the Hillside Decree. These opinions are presented in Appendix A-4.

COMMENT PD-14

The Agreement lacks a comprehensive grazing management program that is subject to CEQA review. Not enough information is provided on the grazing management program described in the Draft EIR.

RESPONSE PD-14

This comment is correct that the Agreement does not contain any provisions for the management of grazing. This project does not propose any changes in the long-standing practices of LADWP to lease its lands for agriculture and livestock grazing purposes. LADWP's program to lease land for agriculture and livestock grazing has been the same since 1968, and there is no proposal to change the land leasing practices as they relate to livestock grazing.

However, grazing management is addressed in the Draft EIR. In Chapter 17, CEQA Considerations, at page 17-5, the Draft EIR provides the following five-point program:

- o Mapping of all LADWP lands for documentation of the vegetation species present, percent cover, and percent composition.
- o Establishment of carrying capacity based on the above-noted vegetation documentation.
- o Documentation of livestock use on Los Angeles lands in terms of lessee range practices.
- o Identification of problem areas and imbalances in either over- or under-utilization.
- o Development, application and enforcement of appropriate range management practices.

Additional information regarding the LADWP grazing management program is provided in Appendix B-1.

COMMENT PD-15

The release of Los Angeles-owned lands for development would result in destruction of wetlands.

RESPONSE PD-15

Section XV.A (pages B-50 to B-54) of the Agreement provides that Los Angeles will offer for sale 75 acres within the general areas designated on maps attached as Exhibit B to the Agreement. Within the boundaries shown on these maps are several hundred acres adjacent to Owens Valley towns which are designated for urban expansion in Inyo County's General Plan. The 75 acres will be selected from among the several hundred acres designated on the maps. There are sufficient designated lands to allow selection of 75 acres that, if developed, would not result in the destruction of wetlands. Further, the release of the lands and any development will be subject to public review through CEQA and all other applicable laws and must comply with Inyo County's General Plan.

COMMENT PD-16

Haiwee Reservoir/Dam should not be included in the EIR as a benefit to Inyo County because of seismic and safety problems. Haiwee Reservoir/Dam should be deleted from the Agreement.

RESPONSE PD-16

Although this element of the project may provide a benefit, it is emphasized that this benefit is not a mitigation for any adverse environmental effect of the project. The Agreement provides that LADWP will perform seismic studies to determine if South Haiwee Dam can be safely operated at reduced storage levels. If such operations are allowed, a recreation plan will be developed and the reservoir will be opened to the public. If operations at South Haiwee Dam cannot take place because of safety concerns, a recreation plan for North Haiwee Reservoir will be developed and will be implemented if feasible. If one of these reservoirs can be opened to the public, there will be a benefit in the form of increased recreational opportunities.

COMMENT PD-17

The Drought Recovery Policy should be strengthened to cause recovery of soil moisture to the estimated needs of the vegetation at the time it was inventoried between 1984 and 1987.

RESPONSE PD-17

Concerning drought recovery, the Draft EIR at page 10-70, paragraph 3, provides:

Recognizing the experimental nature of the management and mitigation techniques, and under the severe conditions of the current drought, it has been agreed by LADWP and Inyo County to conservatively manage groundwater pumping during this drought and during a period of recovery following the drought, LADWP and Inyo County have agreed that the following policy will govern future groundwater pumping:

"Recognizing the current extended drought, the Standing Committee establishes a policy for annual management of groundwater pumping during this drought. The goal of this policy is that soil water within the rooting zone recover to a degree sufficient so that the vegetation protection goals of the Agreement are achieved. To this end, groundwater pumping during this drought, as well as the period of recovery, will be conducted in an environmentally conservative manner, taking into consideration soil water, water table, and vegetation conditions. It is recognized that soil water in the rooting zone is naturally replenished by precipitation and from the water table. Further, soil water, water tables, and vegetation conditions will be monitored by the Technical Group to ensure that the goal of this policy is being achieved and for purposes of evaluating the effectiveness of the existing well turn-off/turn-on provisions."

The Standing Committee has adopted the following clarification to the Drought Recovery Policy concerning the establishment of annual pumping programs:

"The purpose of this clarification is to provide guidance to the Standing Committee for establishing annual pumping programs during the current drought as well as during a period of recovery. It is intended that groundwater pumping will continue to be conducted in an environmentally conservative manner as was done during the 1990-91 and 1991-92 runoff years until there has been a substantial recovery in soil moisture and water table conditions in areas of Types B, C, and D vegetation that have been affected by groundwater pumping. The

Standing Committee will establish annual pumping programs based on an evaluation of current conditions, including soil moisture level, water table depth, degree of water table recovery, soil type, vegetation conditions, the results of studies pertaining to vegetation recovery, and compliance with the goals of the Agreement. It is probable that this policy will result in reduced annual pumping programs as compared to annual pumping programs based solely on soil moisture conditions."

COMMENT PD-18

How will significance be interpreted under the Agreement? The term "significant" should be clearly defined.

RESPONSE PD-18

In the original draft of the Agreement, "significant" was included among the terms as defined under CEQA; however, in response to public comments requesting a more detailed definition of significance, the August 1989 draft was revised by the addition of Section IV.B (pages B-22 through B-24), regarding the determination of significance and significant effect on the environment. The guidelines for making this determination are found in the Green Book, Section I.C (pages 19 through 27). However, should it be believed that a significant effect on the environment (as defined under CEQA) has or will occur due to the project, any person may bring the matter to the attention of Los Angeles or Inyo County and/or employ any other available legal right or remedy, including CEQA.

ALTERNATIVES

COMMENT AL-1

The alternatives in the Draft EIR are not genuine, but are "variations on a theme" and thus do not meet CEQA.

RESPONSE AL-1

The project alternatives are presented in Chapter 6 of the Draft EIR. The EIR is being used differently by Los Angeles and Inyo County. Inyo County will use the EIR as an informational document to assist it in deciding whether or not to approve the Agreement. (Inyo County can only

approve or disapprove the Agreement, which is one element of the project under review.) Los Angeles will use the EIR to comply with the requirements of CEQA as mandated by the Third District Court of Appeal. The alternatives analysis is intended to provide the information needed by both groups of decision-makers.

The alternatives analyzed in the Draft EIR represent a wide range of potential actions and management practices in the Owens Valley that could likely fulfill some of the proposed project objectives. In addition, discrete actions separate from management practices that could be employed in Owens Valley, such as wastewater reclamation, desalination, and conservation within the Los Angeles region, are discussed in detail. The feasibility of each action is discussed in the context of meeting the objectives of the proposed project. As described in Chapter 6, Los Angeles believes that wastewater reclamation, desalination, and conservation could not serve as stand-alone alternatives to the proposed project. As a result, the range of alternatives presented in Chapter 6 represents the most feasible alternatives to increased groundwater pumping in the Owens Valley.

COMMENT AL-2

The analyses on desalination and wastewater reclamation are biased, and overstate the negative impacts associated with each, while underestimating benefits. These two measures alone could preclude any groundwater pumping in Owens Valley.

RESPONSE AL-2

No attempt has been made to establish bias in the discussion of desalination and wastewater reclamation as feasible alternatives to groundwater pumping in Owens Valley. The costs for producing and delivering water from a desalination plant or reclaimed wastewater plant tend to be very expensive compared to conventional water supplies.

During preparation of the Draft EIR, effort was made to obtain and analyze the latest information pertaining to desalination technology and costs, relative to more conventional sources of water supply. Based on this information, it was concluded that water could be obtained via desalination, at a cost of \$2,000 to \$5,000 per acre-foot, compared to about \$80 per acre-foot for water from Owens Valley, and about \$230 per acre-foot for water purchased from the Metropolitan Water District (MWD). This analysis indicated that at the present time desalination, in and of itself, does

not represent a stable, affordable long-term source of water supply for Los Angeles, principally because of cost. Desalination appears to be more suited to short-term emergency use such as during drought periods.

With respect to wastewater reclamation, the City of Los Angeles' recently created Office of Water Reclamation was used as the primary source of data for estimating the effects and costs of wide-scale use of reclaimed water within the Los Angeles region. In Chapter 6, Alternatives to the Proposed Project, page 6-40, data pertaining to reclaimed water projects and their estimated costs are presented. The data shows that costs could range from \$500 to \$900 per acre-foot of reclaimed water delivered, or roughly two to four times the cost of water purchased from MWD, and six to eleven times the cost of water from the Owens Valley. Another limitation to the use of reclaimed water, California Department of Health Services regulations, is discussed in Chapter 6, Alternatives to the Proposed Project, page 6-37.

Despite the economic and regulatory hurdles to be overcome, the goal of the Office of Water Reclamation, established in 1989, is to pursue all feasible water reclamation projects irrespective of the level of pumping in Owens Valley. Water reclamation, therefore, is not considered as an alternative. Since LADWP will be pursuing an aggressive reclamation program, any reduction or change in pumping levels and Los Angeles Aqueduct delivery to Los Angeles will be offset by changes in MWD purchases.

COMMENT AL-3

The alternatives analysis indicates that the additional water supplied by the project is only 42,000 acre-feet per year over pre-project levels, or six percent of Los Angeles's supply. Los Angeles could certainly conserve six percent as a way of avoiding any further groundwater pumping in the Owens Valley.

RESPONSE AL-3

As described in Chapter 6, Alternatives to the Proposed Project, page 6-5, the figure of 42,000 acre-feet per year was derived for use in comparing the alternatives to the project. This figure does not necessarily represent the amount of additional water over pre-project levels that would be exported from Owens Valley in any one year. Actual export will vary depending on

environmental and hydrologic conditions. Therefore, in some years additional export could be substantially more than six percent of current Los Angeles water use.

Conservation efforts by Los Angeles are described in Chapters 3 and 6 of the Draft EIR. Since the publication of the Draft EIR, Phase II of Los Angeles's Emergency Water Conservation Ordinance was enacted effective March 1, 1991, which required a mandatory 10 percent reduction from 1986 usage. As of May 1, 1991, Phase III became effective, requiring a 15 percent reduction in water use.

COMMENT AL-4

The alternatives analysis should evaluate a pipeline from the northwest region to northern California as a potential new water supply.

RESPONSE AL-4

A pipeline from the northwest to California was not included in the analysis since no definitive description of such a system has been developed. To develop such a system in the absence of a project sponsor would be speculative and remote given the lack of federal or state funds for such major public works projects. The speculative nature of such a system does not allow comparison to more defined water supply alternatives that are presented in the Draft EIR.

ENVIRONMENTAL ANALYSES

A. Pre-Project Conditions

COMMENT EA-1

The description of pre-project vegetation conditions should be improved. It should include a pre-project vegetation map, an estimate of the number of acres of each vegetation type that existed in the Owens Valley prior to 1970, descriptions of the pre-project conditions of rare plant and animal species, and the pre-project aerial extent of all springs, seeps and marshes.

RESPONSE EA-1

In initially responding to this comment, it must be noted that prior to the preparation of the Draft EIR, no description of the pre-project conditions of groundwater dependent vegetation on the valley floor existed. There was no vegetation map of these conditions, nor were there any surveys or inventories documenting these vegetation conditions. Therefore, it was necessary to develop a description of pre-project conditions. In developing this description, the best available information was used, but much of this information was not produced until after 1970.

The information sources used in establishing a description of pre-project vegetation conditions included: (1) reports and letters supplied by both LADWP and the Inyo County Water Department; (2) past environmental impact reports filed by the City of Los Angeles; (3) field surveys conducted by EIP Associates personnel; (4) conversations with noted experts and knowledgeable residents; (5) aerial photographs taken in 1968, 1973, 1981, and 1988; (6) herbarium and library research at both the California Academy of Sciences, San Francisco, and the University of California at Berkeley; (7) a vegetation cover map compiled in 1973 by Earth Sat, Inc., and associated report; (8) a comparison of Owens Valley vegetation on 1968 and 1981 air photos conducted by Ecosat Geobotanical Surveys, Inc.; and (9) sources of historical information.

With regard to the 1973 vegetation cover map compiled by Earth Sat, Inc., this map was used in assessing the impacts to vegetation of the project from 1970 to 1990 by comparing it with vegetation maps developed during the 1984-87 vegetation inventory; however, the quantity of data and the level of detail of the 1973 map limited its usefulness in accurately establishing pre-project conditions or evaluating vegetation change.

During preparation of the Draft EIR, consideration was given to using interpretation of aerial photos of the Owens Valley taken in 1941 and 1968 to prepare a map of pre-project vegetation conditions. Inyo County and LADWP had differing opinions on the feasibility of establishing pre-project vegetation conditions through such an air photo interpretation. Consequently, during preparation of the Final EIR, two technical experts in the field of air photo interpretation, Dr. Robert Colwell and Dr. Paul Tueller, were contacted for an opinion regarding analysis of the available photos. Those experts suggested that there are several benefits to such an analysis, but cautioned that there are also certain limitations of the photos themselves that tend to reduce their

interpretability. (Letters regarding the use of existing air photos received from Dr. Tueller, Dr. Colwell and Mr. Dennis Jaques of Ecosat Geobotanical Surveys, Inc., are presented in Appendix B-2.) Because of the differing conclusions of these experts, an interpretation of existing air photos to develop a map of pre-project vegetation conditions was not undertaken. As a consequence, it was not considered feasible to reliably estimate the number of acres of each vegetation type that existed in the Owens Valley prior to 1970 and such information is not presented.

However, Inyo County and LADWP recognize that aerial photos can be a valuable monitoring tool. To determine their utility in monitoring the vegetation of the Owens Valley, a cooperative study will be undertaken by the County and LADWP, together with experts in the field of aerial photo interpretation. This study will analyze existing aerial photos as part of an evaluation of the merits of using aerial photo analysis as an ongoing monitoring technique.

Despite problems with establishing a pre-project description for groundwater dependent vegetation, it was possible to establish a more accurate description for vegetation whose source of water supply was precipitation, the river or its tributaries, lakes and ponds, canals and ditches, springs and seeps, and irrigation, because relatively good records exist for the pre-project period concerning such water supply sources. The description of this vegetation is presented in Chapter 10, Vegetation, of the Draft EIR.

In response to public comments, a better description of some Owens Valley springs has been prepared. Aerial photos were used to prepare generalized pre-project and 1990 vegetation maps of the Owens Valley springs known to have been affected by the project between 1970 and 1990. These maps show the areal extent of spring influenced vegetation in 1968 and 1990. The maps are presented in Appendix A-1. Also in Appendix A-1 is a list of plants, including species of special concern, typically found at or around springs, and a list of animal species of special concern known to use spring habitats.

With regard to the request that the Draft EIR include descriptions of the pre-project conditions of rare plant and wildlife species, in the early 1980s, LADWP began a program of monitoring plant and animal species on its lands in the Owens Valley. Prior to that time, little data existed on the occurrence of rare and endangered species on Los Angeles-owned lands. As stated earlier in this

response, no surveys or inventories of any kind were conducted prior to 1970. Thus, it is not possible to accurately describe the pre-project conditions and occurrence of these species.

B. Geology

COMMENT G-1

Verify that subsidence has not occurred due to groundwater pumping. It is hard to believe that groundwater pumping for over 20 years in Owens Valley has not resulted in subsidence.

RESPONSE G-1

Ground subsidence is a phenomenon where the ground surface elevation is lowered as much as tens of feet or as little as a few inches. Ground subsidence can occur progressively over time (usually years) as a result of pumping an aquifer that underlies relatively loose, unconsolidated soils. Ground subsidence has been observed in California in portions of the Central Valley and Santa Clara Valley. Man-made structures such as fences, roads, power poles, and sewer lines, water lines, drainage structures, and buildings are often affected by ground subsidence.

Fine-grained alluvial aquifers containing groundwater under artesian pressure are known to be susceptible to ground subsidence as a result of groundwater extraction. Pumping induced release of artesian pressures, drawdown, causes compression of the aquifer and the adjacent and included silt and clay deposits. The extent of subsidence is dependent on the amount of drawdown and the thickness, elasticity, porosity, and compressibility of the fine-grained soils. Generally, the amount of subsidence caused by release of hydraulic pressure within thick beds of silt and clay is greater, than an equal drawdown within an aquifer having only thin lenses of silt and clay. In the Owens Valley, the upper alluvial fans contain mostly coarse-grained sediments that are not susceptible to subsidence; however, the thick fluvial and lacustrine deposits underlying portions of the valley floor contain substantial thicknesses of silt and clay that are susceptible.

The LADWP well fields are consistently located along the western edge of the valley where the coarse-grained deposits offer excellent well yields. Aquifer drawdown in these areas and from the fractures and cavities within the volcanic deposits do not result in subsidence. However, those wells located further toward the valley floor have caused pressure reductions within fine-grained deposits.

2. Master Comments and Responses

In those areas, typified by artesian wells whose flows have been interrupted by groundwater pumping, the potential for subsidence exists.

During the preparation of the Draft EIR, several sources were consulted to determine whether ground subsidence has occurred in Owens Valley, and if so, whether such ground subsidence is attributable to groundwater pumping. Technical data from the U.S. Geological Survey (USGS) were examined along with field data provided by LADWP. No evidence was found in the literature or in conversations with LADWP field personnel; no visual evidence of subsidence has been observed.

Third order levels circuits were performed in the Independence/Manzanar well fields beginning in 1931. Portions or all of the monuments were resurveyed eight additional times since 1931 -- the last being in 1983.

After reviewing these findings and adjusting for different USC and USGS datums used, the conclusion is that the settlements observed are beyond the accuracy of the survey methods used but may be in the order of less than 0.1 foot (less than 1.20 inches). Since the areas susceptible to subsidence are located on the valley floor away from roads, utilities and structures that could be adversely affected, it is concluded that, even if some small amount of subsidence may have occurred, it is not considered to be a significant impact on the geology, soils, or seismicity of the Owens Valley. Further subsidence monitoring will be performed with global positioning equipment, and the first survey using this method will be completed by May 15, 1991.

COMMENT G-2

Geology of Owens Valley is not properly described. More information about the Pleistocene period needs to be included.

RESPONSE G-2

The information contained in the Draft EIR pertaining to geology was obtained from recent reports such as the USGS Report No. 88-715, which addresses the geological and water resources of Owens Valley. The information presented in the Draft EIR correctly and adequately describes the processes that formed the Owens Valley, and correctly describes the main geologic formations that

make up the valley. Although the glaciers of the Pleistocene period had significant impacts on the landforms in the upper elevations of the Sierra Nevada, neither the glaciers nor their moraines extended onto the floor of the Owens Valley. Therefore, their contribution of water and sediment were only an extension of the geologically continuous processes described in the Draft EIR. Additional discussion of the Pleistocene period, while informative, does not affect the analysis or conclusions presented in the Draft EIR.

C. Water Resources

COMMENT WA-1

The conclusion of "no significant impacts" on water resources should be disputed, especially for private wells, springs, seeps, and abandoned canals. Water has been lost from these facilities or natural areas.

RESPONSE WA-1

1970 to 1990

According to CEQA Guidelines, Appendix G, Significant Effects, a significant effect on water resources would normally occur if a project would substantially degrade water quality; contaminate a public water supply; substantially degrade or deplete groundwater resources; or interfere substantially with groundwater recharge. While each of these criteria is subject to some interpretation, it is concluded that LADWP's water gathering activities in the Owens Valley since 1970 have not had a significant impact to water resources in that the viability of the water resources has not been threatened. Chapter 9, Water Resources, in the Draft EIR acknowledges that an impact occurred at the Stewart Ranch near Big Pine, and the Vegetation and Wildlife chapters of the Draft EIR acknowledge that the changes in water availability from 1970 to 1990 at some springs and formerly irrigated pastures have had a significant impact on the vegetation and wildlife that are dependent upon these water resources. These impacts are described in the appropriate impact sections of the Draft EIR. However, the concept of water resources in this EIR consists of all surface water and groundwater available in the Owens Valley. Los Angeles' operations during the period of 1970 to 1990 have not affected total available water supply in Owens Valley.

Agreement (Post 1990)

Under the Agreement, groundwater pumping and surface water will be managed to avoid causing impacts to wells not owned by Los Angeles and to avoid groundwater mining. Another goal of the Agreement is to avoid causing significant decreases and changes in vegetation, including vegetation dependent on flows from springs. Given these protections, it has been concluded that there will be no significant impacts to Owens Valley water resources under the Agreement.

The reader may refer to Section III.G (page B-15) of the Agreement and Section IV.A (page 94) of the Green Book for a discussion of future protection of private wells. Management provisions for springs and seeps are discussed in master comments PD-5 and WA-4, and in the Green Book in Sections I.C (pages 24 to 26) and IV.B (page 98). The groundwater mining provisions are discussed in the Agreement in Section III.B (page B-12), in the Green Book in Section IV.C (page 100) and in response to master comment PD-12.

COMMENT WA-2

The water quality discussion is inadequate because it does not provide enough information on pathogens, heavy metals and other types of pollutants.

RESPONSE WA-2

It is believed that sufficient water quality data are included in the Draft EIR. The water quality discussion is presented in Chapter 9, Water Resources. Pre-1970 water quality conditions are discussed on pages 9-45 through 9-47, while water quality from 1970 to 1990 is discussed on pages 9-84 through 9-87. There exists very little data regarding pre-1970 water quality because routine water quality analysis did not occur during this time; however, the surface water and groundwater were considered to be of excellent quality. More detailed water quality analyses were conducted by LADWP beginning in 1974. A summary of the results of this monitoring are presented in Table 9-12; the reader is referred to USGS Open File Report 88-715 for additional detail.

COMMENT WA-3

In-valley water uses versus export are not well defined due to commingling of water in the aqueduct system.

RESPONSE WA-3

It is acknowledged that the aqueduct system is complex and that discussion of the system operation reflects this complexity. In Chapter 5, Proposed Project, Figures 5-1, 5-2, and 5-3 graphically depict sources of water, in-valley water management, and export to Los Angeles in thousands of acre-feet. For comparison, these water uses are further defined by time period (pre-project, 1970-1990, and 1990 onward under the Agreement); and by type of water year (average, dry and wet years).

COMMENT WA-4

Preserve Reinhackle Spring because it is the last of its kind in the Valley.

RESPONSE WA-4

At Reinhackle Spring groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions.

In addition, all of the provisions for protecting springs, described in master response PD-5 and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

COMMENT WA-5

Expand discussion on response of water levels to pumping to further demonstrate how quickly or slowly water levels would return to pre-pumping levels.

RESPONSE WA-5

While it is difficult to generalize about the length of time necessary for the water level in a particular well to respond to cessation of pumping, the response would be related to a number of

characteristics, mainly the transmissivity of the aquifer. Aquifers with transmissivities greater than 100,000 gpd/ft are generally considered to have good water yielding capabilities. Most of the production wells operated by LADWP have high transmissivities. Upon cessation of pumping, the drawdown in the immediate vicinity of the well would be eliminated fairly quickly, probably within one to two days, and the groundwater level would stabilize.

Long-term regional water levels in an aquifer would be dependent upon the amount of recharge provided by the hydrologic cycle (i.e. wet, normal or dry period) and aquifer losses (i.e. pumping, ET, etc.).

A recent nine-year simulation of dry, average and wet conditions performed by the U.S.G.S. (Danskin, 1991) indicated that the Owens Valley aquifer system requires several years to recover from increased pumpage during a drought, even when followed by average and above average runoff. However, according to Danskin (Danskin, 1991), during exceptionally high runoff years, such as 1969 and 1983, recharge may be so great as to cause complete recovery of shallow groundwater levels from any previous decline caused by pumping or drought.

D. Vegetation

COMMENT VE-1

The Agreement allows for changes from one vegetation community to another within a vegetation management type. However, such changes could, in fact, result in significant adverse impacts to plant and/or wildlife species. Within Type E management classification, native pasture should not be allowed to be converted to alfalfa. The Agreement should be modified to prevent these impacts.

RESPONSE VE-1

It is difficult, if not impossible, to completely prevent changes in vegetation from occurring. Plants and plant communities are constantly changing as a result of natural and unnatural causes such as weather patterns, water regime, fire frequency, and grazing effects. It is not the intent of the Agreement to prevent natural changes in vegetation, but rather to avoid causing significant decreases and/or changes in vegetation from conditions documented in 1984 to 1987 due to

groundwater pumping or surface water management. With this in mind, the information obtained from the 1984-87 vegetation inventory was organized into five different management "types."

An explanation of how the 2,126 parcels of Los Angeles-owned land within the Owens Valley were mapped, and assigned to plant communities and management types can be found in Section II of the Green Book. A combination of both the parcel's water use and its plant community were used to determine the vegetation management type.

Under the Agreement, groundwater and surface water will be managed to prevent a change from one management type to a management type that precedes it alphabetically (i.e., a change from Type B to Type A, or from Type C to Types B or A). Management Type D (riparian) would also not be allowed to change to Type E (irrigated land) or Tamarisk, see Green Book Section I.A, page 2. However, the Agreement does allow changes from one vegetation community to another within a management type. The mechanism behind community changes is still not well understood. These changes probably occur as a result of natural forces; they may also be driven by water management practices. It is thought that changes in vegetation communities within management types should not, however, result in substantial decreases in species diversity or vegetation cover.

An example of a change in plant community that is not recognized as a change of management type is an increase in cover of shrubs within a vegetation cover dominated by grasses. A increase in shrubs would cause the vegetation community to be changed from a meadow to a "shrub-meadow" -- for example, from an alkali meadow to a rabbitbrush meadow. Such a shift in species composition may be driven by extended periods of reduced precipitation, fire suppression, grazing effects, or changes in depth to water. Though a change of plant community would have occurred, this change would not result in a change of management type since both alkali meadows and rabbitbrush meadows are classified as Type C vegetation. Therefore, such a change would not necessarily be considered a significant impact under the Agreement.

Conversely, a change from a shrub meadow to a shrub cover (e.g., from rabbitbrush meadow to rabbitbrush scrub), would be a change not only of vegetation community but also of management type -- from Type C to Type B. This would be recognized as a significant impact under the Agreement because the change would involve a loss of vegetation cover and an undesirable change

in species composition. Such downward changes of management type are to be avoided under the Agreement.

As noted above, significant decreases in vegetation from conditions documented in 1984-87 are also to be avoided under the Agreement. If a change from one vegetation community to another within a management type caused by groundwater or surface water management results in a significant decrease in vegetation cover, the Technical Group would implement mitigation consistent with the procedures in the EIR and Green Book.

The Agreement does allow conversion of irrigated mixed species meadows to cultivated alfalfa. This conversion is unlikely, however, because of limitations of soil fertility and drainage at many of the mixed species meadows. The purpose of the provision is to give Los Angeles and its lessees some flexibility in modifying management practices to meet variable economic conditions.

Although change of vegetation communities within a management type is allowed in the Agreement, the degree of change that actually occurs and the environmental significance of a change may still be addressed by the Technical Group. The Technical Group will also address any significant decreases in vegetation cover resulting from such changes. Changes and/or decreases in vegetation will be evaluated and if significant adverse impacts are noted which can be attributed to groundwater pumping or another water management practice, the affected area will become a candidate for mitigation.

COMMENT VE-2

Portions of the analysis of vegetation impacts are site-specific and some portions are not. Additional site-specific information is needed to better understand impacts on vegetation.

RESPONSE VE-2

Significant impacts caused by both groundwater pumping and changes in surface water management between 1970 and 1990 that will receive on-site mitigation are described in Chapter 10, Vegetation, of the Draft EIR, and are listed below in Table VE-2 by impact number. These impact areas are shown in Appendix E. The reader may refer to the appropriate impact number in Chapter 10,

Vegetation, for a description of the cause of these impacts. (These impact areas are also shown in Figures 10-8A through 10-8L of the Draft EIR.) Significant impacts that will be mitigated through compensatory mitigation are described in Chapter 10; compensatory mitigation measures (i.e., Klondike Lake and the existing portions of the Lower Owens River Project). Generalized pre-project and 1990 maps of the spring areas can be found in Appendix A-1.

TABLE VE-2

<u>Impact No.</u>	<u>Acres</u>	<u>Description</u>
10-11	317	Independence Spring Field and Woodlot
10-11	30	Independence irrigated pasture
10-11	30	Big Pine northeast irrigated pasture
10-11	198	Shepherd Creek alfalfa field
10-11	80	Taboose Creek/Blackrock area
10-12	300	Five Bridges north of Bishop
10-13	60	Within the Symmes/Shepherd well field
10-14	6	Seeley Springs, Hines Spring, and Little Blackrock Springs
10-16	610	Independence pasture lands
10-16	320	Van Norman and Richards Fields
10-16	7	At Whitney Portal Road
10-16	11	Field northeast of Lone Pine
10-16	12	Lone Pine Woodlot
10-16	120	Field southeast of Bishop
10-18	140	In the Laws area
10-18	520	Laws/Poleta pasture area
10-18	21	At the Laws Museum
10-19	160	East of Big Pine
10-19	20	East of Big Pine

COMMENT VE-3

Impacts of groundwater pumping are understated. The 1981 Inyo County report mapped 25,000 acres as being affected by groundwater pumping. Why the discrepancy in the Draft EIR? What happened since 1981?

RESPONSE VE-3

1970 to 1990

The Owens Valley Water Management Report (1981) identified approximately 25,000 acres as experiencing vegetation change due to LADWP's water gathering practices since 1970. Three categories of effects to vegetation were identified: slight to moderate (14,333 acres), moderate (8,901 acres), and severe (2,326 acres). The reader may refer to the Owens Valley Water Management Report (pages 62 to 64) for a description of the methods used for identifying and classifying vegetation change in the report. Map 2 on page 63 of the report shows the locations of the identified areas. Some of the lands contained in these categories have experienced only subtle vegetation changes; other areas were estimated to contain less than 20 percent live cover of the total standing vegetation on the site.

The areas identified in the Draft EIR as being significantly adversely affected by the project between 1970 and 1990 are shown in Table VE-2 in the response to master comment VE-2 and are depicted in Appendix E. Maps of several Owens Valley springs pre- and post-1970 are also shown in Appendix A-1.

In identifying the significant environmental effects in the Owens Valley, the EIR authors compiled a list of all known areas of impacts. This compilation was based on studies conducted by USGS and others, and other available data, including the 1981 report. (Inyo County proposed that a comparison be made of aerial photography to document vegetation changes resulting from water management practices from 1970 to 1990. This comparison will be done as an Inyo County/LADWP cooperative study.) Based on the information at hand, the authors used their best judgement to determine the cause of each effect and whether the effect could be deemed significant according to the criteria set forth in Chapter 10, Vegetation, of the Draft EIR. All effects determined to be caused by the project between 1970 and 1990 and to be significant were identified in the Draft EIR and mitigation was prescribed.

Agreement (Post-1990)

Under the Agreement, Inyo County and LADWP will carefully monitor the vegetation, soil water, and water levels in the Owens Valley in order to achieve the Agreement's environmental goals.

These goals require that surface water and groundwater be managed to avoid significant decreases and changes in Owens Valley vegetation from conditions documented in 1984 to 1987 and to avoid other significant environmental impacts. Therefore, the Draft EIR identifies no significant effects for the future under the Agreement.

COMMENT VE-4

A decrease of 40,000 acre-feet per year in evapotranspiration referenced in the Draft EIR is a significant impact and must be specifically addressed in the Final EIR.

RESPONSE VE-4

Table 9-11 on page 9-80 of the Draft EIR shows the USGS groundwater budgets for both the 1963 to 1969 and 1970 to 1984 periods. A comparison of these budgets shows that since 1970 evapotranspiration (ET) decreased by 40,000 acre-feet. This decrease represents an estimated average annual reduction in ET in the Owens Valley.

If a comparison is made between the 40,000 acre-foot decrease in ET and the 25,000 acres estimated by Griepentrog and Groeneveld (1981) to have been affected by the project since 1970, the average per-acre decrease of ET would be about 1.6 acre-feet per acre -- a large decrease in ET. However, within the 25,000 acres estimated to be affected, a change in vegetation corresponding to such a large decrease in ET is not evident in aerial photography taken in 1968 and 1981. This suggests that the area of affected vegetation noted by Griepentrog and Groeneveld is probably conservative and that more subtle decreases in vegetation cover and ET occurred over a larger area. Such subtle changes are difficult or impossible to detect on the small scale air photography that is available.

In Chapter 10, Vegetation, at pages 10-47 and 10-49, a description is given of the criteria used in determining whether an identified impact was significant. These impacts account for a portion of the 40,000 acre-foot reduction in ET calculated by the USGS. As stated above, it is possible that the decrease in ET occurred over a much larger area than previously estimated. Given the subtlety of the associated vegetation changes, even a more detailed analysis of vegetation change, through a comparison of aerial photographs, may not account for the entire reduction in ET calculated by the USGS.

COMMENT VE-5

Use the Jaques report on aerial photo interpretation for pre-project and vegetation impact analysis.

RESPONSE VE-5

The report by Mr. Dennis Jaques was reviewed during the preparation of the Draft EIR. That report identified general locations around the valley floor in which changes have occurred or may have occurred, as defined by a discernible change in vegetation type or density. The EIR team considered the main findings of the Jaques analyses in the Draft EIR; however, as Mr. Jaques acknowledged, the study did not specifically address effects of the second Los Angeles Aqueduct, but only addressed the observation that some vegetation changes had occurred.

During the preparation of the Final EIR, two additional technical experts in the field of air photo interpretation, Dr. Paul Tueller and Dr. Robert Colwell, were contacted for an opinion regarding analysis of the photos available at the present time. Those experts suggested that there are several benefits to such an analysis, but cautioned that there are also certain limitations that tend to reduce their interpretability, such as: (1) inadequate resolution; (2) the inadequate scale of the photos for accurate interpretation; (3) one set of photos is black and white, taken in July 1968, while the other is color, taken in September 1981; and (4) as Mr. Jaques noted, there were differing amounts of precipitation in the months preceding each set of photos. The letters received from Mr. Jaques, Dr. Tueller, and Dr. Colwell are presented in Appendix B-2.

In summary, in addition to Mr. Jaques' report, the other information sources used in the pre-project setting and the impact analyses include: (1) reports and letters supplied by both LADWP and the Inyo County Water Department; (2) past environmental impact reports filed by the City of Los Angeles; (3) field surveys conducted by EIP Associates personnel; (4) conversations with noted experts and knowledgeable residents; (5) aerial photographs taken in 1968, 1973, 1981, and 1988; (6) herbarium and library research at both the California Academy of Sciences, San Francisco, and the University of California at Berkeley; (7) a vegetation cover map compiled in 1973 by Earth Sat, Inc., and associated report; and (8) sources of historical information. Because of the information obtained from Dr. Tueller, Dr. Colwell, and Mr. Jaques, and for the reasons presented

on page 10-27 and 10-28 of the Draft EIR, an analysis of aerial photographs was not the primary method of establishing pre-project vegetation conditions.

However, aerial photos can be a valuable monitoring tool. To determine their utility in monitoring the vegetation of the Owens Valley, a cooperative study will be undertaken by LADWP and Inyo County, together with experts in the field of aerial photo interpretation. This study will analyze existing aerial photos as part of an evaluation of the merits of using aerial photo analysis as an ongoing monitoring technique.

COMMENT VE-6

Inventory and map rare plant species. The listing in the Draft EIR is incomplete. LADWP should have a management plan for rare and endangered plants.

RESPONSE VE-6

LADWP staff have collected and disseminated data pertaining to rare and endangered plants in the Owens Valley to responsible State and federal agencies since 1981. Prior to that time, little data existed on the occurrence of rare and endangered species on Los Angeles-owned lands.

The listing of plant species of concern in Chapter 10, Vegetation, pages 10-19 to 10-23, of the September 1990 Draft EIR was based on information from the California Native Plant Society and other sources, such as the California Natural Diversity Data Base. As a result of comments received on the Draft EIR, this information has been updated and is included in Appendix B-3.

LADWP currently monitors a dozen species of sensitive plants known to occur on Los Angeles-owned lands as part of their ongoing vegetation and land management program. A program for monitoring and management of these species is described in the Green Book, Section I.D (pages 31-33).

COMMENT VE-7

Description of secondary effects of saltcedar eradication/control is inadequate. What happens to other vegetation when saltcedar is removed?

RESPONSE VE-7

Saltcedar (Tamarix ramoissima) is a loosely branched shrub or small tree capable of growing to a height of 10 to 15 feet. Saltcedar is well adapted to survive in either very wet or dry conditions and can tolerate a wide range of saline and alkaline soils and water. It is a non-native phreatophyte (groundwater dependent) shrub that is capable of consuming large amounts of groundwater. Once established it can exist as a xerophyte and is therefore classified as a facultative phreatophyte. It grows rapidly and can crowd out native plants. Under favorable conditions, it can become an impenetrable thicket within a decade. Its small, scale-like leaves excrete absorbed salt, making the plant unpalatable to grazing livestock and resistant to foliar herbicides.

In 1985, as part of the Inyo County-Los Angeles Agreement, a Saltcedar Control Study was added to the list of enhancement/mitigation projects. The study was conducted in 1986 through 1988 and its findings and recommendations were incorporated in the 1989 Los Angeles/Inyo County Agreement. The Agreement identifies the proposed saltcedar control program in Section XIV.A, Subsection A. - Saltcedar Control. Seven priority locations have been identified in the Agreement for implementation in the initial three (3) year program. It is stated in the Agreement (page B-42, line 20) that even after implementation of the control program, saltcedar may not be fully controlled in the Owens Valley.

Impacts of this program, including secondary effects, will be the subject of future CEQA documentation to evaluate the methods of eradication and control of this species, including alternatives for planting and water management to prevent reestablishment of saltcedar and reduce the environmental effects of its removal.

COMMENT VE-8

The impact analysis in the Draft EIR did not include an area of approximately 300 acres north of the Owens River near Laws that has been severely impacted by groundwater pumping since 1970.

RESPONSE VE-8

The conditions observed at the site identified in this comment were a severe decline in depth to water and die-off of approximately 300 acres of meadow and riparian vegetation.

In response to this comment, an analysis was done of the vegetation and hydrology of the area. Preliminary results of the analysis showed that the impact could have been caused by a combination of several factors, including five years of below-average rainfall, groundwater pumping from the Laws well field, historical downcutting of the Owens River, and low river flows between 1987 and the present. In order to better identify the cause of the impact and, if possible, to reverse the effects, Inyo County's and LADWP's hydrologic and vegetation monitoring programs will be expanded to include a detailed hydrologic and vegetation analysis of this area. If it is found that the Laws study area was adversely affected by pumping, the Technical Group will develop and implement mitigation in accordance with the Agreement and Green Book.

E. Wildlife

COMMENT WL-1

The listing of birds in the wildlife chapter is both inaccurate and incomplete. The listing of birds should be updated to reflect new names of some bird species, and to include the most recent data on bird sightings.

RESPONSE WL-1

In response to comments, supplemental data pertaining to wildlife has been prepared. A revised list of birds was prepared with the assistance of local bird experts and represents the most current listing of bird species for the Owens Valley and Inyo County. Please refer to Appendix C-1.

COMMENT WL-2

Historical references pertaining to lesser wildlife abundance are not documented in the Draft EIR.

RESPONSE WL-2

The comment pertains to Chapter 11, Wildlife, Section 11.1, Background and History. In this section LADWP stated that newspaper reports and journals reporting the observations of early explorers suggest that there were probably fewer species of wildlife found in abundance in Owens Valley. The principle sources for the statement are the Inyo Register and a report by Dr. Hoffman, naturalist with the Wheeler Expedition in 1871, as printed in the Inyo Independent.

As cited on Page 11-4 of the Draft EIR, the Inyo Register of March 3, 1909 carried an article describing the recollections of a Valley pioneer as to conditions in the Valley in the years 1865 through 1867. The article, under the caption "Pioneer Reminiscences--An Old Timer Tells of Conditions Long Ago," reported on the wildlife of those days as follows: "There were few varieties of birds here at that time. Blackbirds were more plentiful than now, and much more of a nuisance. Ducks, meadowlarks, and jackrabbits were the principal game to be found. The Indians had regular rabbit hunts, catching them in nets which they made from milkweed fiber and about two feet high. The rains brought an army of ducks, mostly mallards. Civilization, settlement rather, reduced the number of coyotes and gave us quail and others of the feathered race. I remember hearing expressed many times the regret that no bees could be kept here, because of the lack of flowers."

In 1871, portions of a report by Dr. Hoffman, a young surgeon and naturalist and member of a detachment of the Wheeler Expedition, under Lt. Lyle, camped near Camp Independence, were printed in the Inyo Independent of July 29, 1871. Dr. Hoffman was preparing a report on the geology, entomology, flora, and fauna of the region. He observed that the region ". . . is nearly destitute of trees and therefore birds are not very abundant. The only places where nests can be found are in the canyons and cliffs. Birds breeding in such places are nearly all raptorious."

In December 1881, the Owens River Valley Sporting Club was formed, with Charles Wonacott as president. Mr. Wonacott wrote to the editor of the Independent (December 10, 1881) to say that the main object of the Club will be to unite sportsmen in the County to secure the introduction of various kinds of fish and game not found in the County.

The assertion of lesser wildlife abundance that is presented in the Draft EIR was intended to convey the fact that wildlife habitat was probably different and perhaps, less productive for certain species during that time period compared to the present. The intensification of agriculture and creation of an extensive irrigation system by white settlers before the turn of the century and well into the 1920s, resulted in the modification of the landscape. Some wildlife species, especially certain bird species, benefited from these modifications, while some species such as the native fishes (e.g., Owens pupfish and Owens Tui chub) were adversely affected.

Trees and large shrubs were planted for windbreaks, landscaping, and shade, which later served as habitat, cover, and, in some cases, food for local wildlife.

The number of bird species inhabiting any one area is used as a measure of wildlife abundance and diversity. Dr. A.K. Fisher and his seven-man party recorded observations of 137 species of birds during his expedition in Owens Valley in 1890/91 (see "North American Fauna," No. 7, pp. 7-158, May 31, 1893). Observations were made in December 1890 and each month from May 1891 through September 1891, from Olancha to the head of the Owens River. Some of the 137 species were observed only at elevations above the Valley floor. Also, many of the more common species seen today, such as magpies, were absent from that list.

Between February 1, 1974 and June 1, 1974, and from October 1, 1975 to December 12, 1975, the Department of Fish and Game conducted field studies in the Valley. Their observations, combined with observations of other qualified bird-watchers; reviews of relevant literature; and interviews with qualified persons were used to compile a bird list that was submitted to the Department of Water and Power in 1975. That list, considered to be representative of pre-project conditions (used in this Draft EIR, Appendix C), recorded 257 species. Again, some of those species were observed only at elevations above the Valley floor.

Today, there are approximately 300 species of birds documented as occurring in Owens Valley, several being the first record for Inyo County observed in the past five or six years.

In addition, cooperative wildlife programs implemented over the last 25 years have resulted in the improvement of fish and wildlife habitat, and in some cases, the reintroduction of native fish

species. A bibliography of contemporary and historical references pertaining to wildlife in Owens Valley is presented in Appendix C-3.

COMMENT WL-3

The listing of animal species of special concern contained in Table 11-5 of the September 1990 Draft EIR is incomplete. Please refer to the listing provided by the California State Department of Fish and Game.

RESPONSE WL-3

Comment noted. The following species are added to the list of endangered, threatened, or species of special concern contained in Table 11-5:

<u>SPECIES</u>	<u>STATUS</u>
Owens Sucker (<i>Catostomus fumeiventris</i>)	CSC
Common Loon (<i>Gavia immer</i>)	CSC*
American White Pelican (<i>Pelecanus erythrorhynchos</i>)	CSC*
Double-crested Cormorant (<i>Phalacrocorax auritus</i>)	CSC*
Least Bittern (<i>Ixobrychus exilis</i>)	CSC*
White-faced Ibis (<i>Plegadis chihi</i>)	CSC, 2*
Cooper's Hawk (<i>Accipiter cooperi</i>)	CSC*
Northern Goshawk (<i>Accipiter gentilis</i>)	CSC, FSS*
Sharp-shinned Hawk (<i>Accipiter striatus</i>)	CSC*
Ferruginous Hawk (<i>Buteo regalis</i>)	2*
Northern Harrier (<i>Circus cyaneus</i>)	CSC*
Osprey (<i>Pandion haliaetus</i>)	CSC
Sandhill Crane (<i>Grus canadensis</i>)	ST*
Mountain Plover (<i>Charadrius montanus</i>)	2*
Long-billed Curlew (<i>Numenius americanus</i>)	2*
California Gull (<i>Larus californicus</i>)	CSC*
Short-eared Owl (<i>Asio flammeus</i>)	CSC*
Burrowing Owl (<i>Athene cunicularia</i>)	CSC*
Black Swift (<i>Cypseloides niger</i>)	CSC*
Vermillion Flycatcher (<i>Pyrocephalus rubinus</i>)	CSC*
Purple Martin (<i>Progne subis</i>)	CSC*
Bank Swallow (<i>Riparia riparia</i>)	ST*
Le Conte's Thrasher (<i>Toxostoma lecontei</i>)	CSC
Inyo California Towhee (<i>Pipilo crissalis eremophilus</i>)	SE, FT
Virginia's Warbler (<i>Vermivera virginiae</i>)	CSC*
Townsend's Western Big-eared Bat (<i>Plecotus townsendii</i> townsendii)	CSC, 2
Panamint Kangaroo Rat (<i>Dipodomys panamintinus panamintinus</i>)	FSS
American Badger (<i>Taxidea taxus</i>)	CSC

ADDITIONAL SPECIES THAT FALL INTO ONE OR MORE OF THE FOLLOWING CATEGORIES:

- 1) taxa considered rare or endangered under Section 15380 (d) of CEQA guidelines;
- 2) taxa thought to be biologically rare, very restricted in distribution, or declining throughout their range;
- 3) populations in California that may be peripheral to the major portion of the taxon's range, but which are threatened with extirpation within California;
- 4) taxa loosely associated with a habitat that is declining in California at an alarming rate (which may or may not include Owens Valley).

BIRDS

Western Grebe (*Aechmophorus occidentalis*)
Great Blue Heron (*Ardea herodias*)*
Great Egret (*Casmerodius albus*)*
Snowy Egret (*Egretta thula*)*
Black-crowned Night Heron (*Nycticorax nycticorax*)*
Bufflehead (*Bucephala albeola*)*
Black-shouldered Kite (*Elanus caeruleus*)*
Caspian Tern (*Sterna caspia*)*
Forster's Tern (*Sterna forsteri*)*

MAMMALS

Pallid Bat (*Antrozous pallidus*)

ADDITIONAL SPECIES LISTED ON NATIONAL AUDUBON SOCIETY BLUE LIST, an "Early Warning System" for birds that have been reported in decline in some portion(s) of their range (not necessarily in California or specifically, Owens Valley):

American Bittern (*Botaurus lentiginosus*)
Canvasback (*Aythya valisineria*)
Red-shouldered Hawk (*Buteo lineatus*)
Black Tern (*Chlidonias niger*)
Barn Owl (*Tyto alba*)
Common Nighthawk (*Chordeiles minor*)
Bewick's Wren (*Thryomanes bewickii*)

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.

Source: California Department of Fish and Game, Natural Diversity Data Base, 1990.

COMMENT WL-4

Past USGS and California Fish and Game reports (pre-1970) should be used to help establish pre-project conditions.

RESPONSE WL-4

LADWP is unaware of any USGS reports offering data on pre-project wildlife populations in Owens Valley. Likewise, with the exception of annual fish planting records and periodic roadside counts of rabbits; quail and chukar brood counts; and an annual one-day mourning dove coo count in the Big Pine area; there are no Department of Fish and Game reports documenting pre-project conditions for the overall wildlife community on the Valley floor.

As described in Chapter 11, Wildlife, Section 11.2 Pre-Project Setting, page 11-5, paragraph 5, data pertaining to wildlife conditions is limited by the fact that no comprehensive wildlife inventories were conducted by LADWP or federal and State wildlife agencies during the pre-project period. The absence of definitive data, e.g., wildlife censuses and inventories, for the pre-1970 period is the basis for the qualitative assumptions and assessments contained in the Draft EIR.

COMMENT WL-5

The Draft EIR should have included a Habitat Evaluation Procedure (HEP) to quantify changes to wildlife habitat, and indirectly serve as an estimate of change in wildlife populations.

RESPONSE WL-5

A Habitat Evaluation Procedure (HEP) is a species-habitat approach to impact assessment approved by the U.S. Fish and Wildlife Service (USFWS). A successful HEP procedure could provide assessment of the habitat values that would be affected by a proposed action, such as a dam or building development, and as such, could be used as a basis for formulating mitigation measures. It is a complex procedure involving intensive field surveys of plants and animals, followed by use of mathematical models to conceptually address the issues of species populations and habitat among four indicators: species-population; biological integrity; environmental values; and habitat. The HEP is typically applied to site areas much smaller than the Owens Valley, such as 20,000 acres or less. The Owens Valley floor totals approximately 230,000 acres. A HEP is also normally conducted before a project begins, whereas some elements of this project have been in operation for 20 years. Performance of a HEP as part of the Draft EIR is thus not feasible.

COMMENT WL-6

Does the Los Angeles Department of Water and Power monitor wildlife on their lands? If so, how?

RESPONSE WL-6

LADWP's Bishop Office has a staff of four biologists trained in both wildlife biology and botany, with a total of 60 years experience in the Owens Valley. To monitor wildlife populations, periodic inventories are conducted through 100 miles of driven census routes to record all species observed. Wildlife species diversity counts are conducted at various sites on Los Angeles-owned lands (e.g. Tinemaha Reservoir, Klondike Lake, lower Owens River, and various ponds and springs). Journals and card files are also maintained to record observations of wildlife made during routine daily activities.

In addition, LADWP biologists conduct studies and prepare habitat management plans, usually in cooperation with State and federal agencies, and participate with the State Department of Fish and Game in annual censuses of local deer herds, Tule elk herds, pheasant populations, and state-wide bald eagle and waterfowl surveys. Assistance is also provided to the State Department of Fish and Game, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and federal Bureau of Land Management on peregrine falcon and ring-necked pheasant reintroductions, Owens pupfish

sanctuaries, California bighorn sheep and antelope relocations, and both trout and warm water fishery studies and enhancement projects.

F. Air Quality

COMMENT AQ-1

The Draft EIR should have included the Owens Dry Lake dust problem as a cumulative air quality impact since this is the major source of PM-10 in Inyo County.

RESPONSE AQ-1

Although the project does not affect the condition of Owens Dry Lake, the lake is considered in evaluating whether the cumulative effect of dust caused by the project, in combination with the dust from Owens Lake, causes a potentially significant adverse impact.

Impacts to air quality caused by the project result from significant reductions in vegetation cover and/or soil moisture. The single documented source of blowing dust (Independence Springfield) caused by the project has been mitigated (see pages 12-7 and 12-8 of the Draft EIR). The Draft EIR identifies other potential sources of dust from poorly vegetated areas and identifies mitigation measures to revegetate these areas. In addition, the goal of the Agreement is to avoid causing vegetation decline. Therefore, it is unlikely that the project has caused or will cause dust in quantities sufficient to be deemed significant. It also does not appear that the amount of any dust that has been or will be caused by the project adds in any significant way to the already significant dust problem from Owens Lake. A discussion of the cumulative effects of the project to air quality follows.

Except for short-term monitoring conducted by the California Air Resources Board in 1972, the air quality in the Owens Valley was not monitored until 1979, when Great Basin Unified Air Pollution Control District (GBUAPCD) established monitoring sites throughout the valley. Quantitative data for pre-project air quality conditions are, therefore, not available.

However, based on anecdotal and other information, the following areas have been identified as sources of blowing dust before the project was implemented: the area east of Owens River, from Big Pine to Lone Pine; the dry shoreline of Tinemaha Reservoir when exposed due to low water

levels; the spillway area on the east side of Tinemaha Dam; some poorly vegetated lands that were formerly cultivated and irrigated; and Owens Dry Lake, which is the largest single source of dust in the Owens Valley. These sources of dust represent the background air quality for evaluation of the cumulative impacts of the project on the air quality of the valley.

Owens Lake began to shrink in the 1890s as a result of the diversion of the Owens River and its tributary streams for irrigation in the valley. By 1904 the lake was reduced from its original area of 110 square miles to approximately 68 square miles. In 1913 Los Angeles diverted the entire flow of the river and its tributaries below the Intake Dam into the Los Angeles Aqueduct, and by 1924 Owens Lake was essentially dry. On windy days, large plumes of dust may be observed rising from the surface of the dry lake bed.

Monitoring by GBUAPCD confirmed Owens Lake as the predominant cause of federal air quality standard exceedences in the valley. Approximately 90 percent of the federal exceedences are caused by the dry lake bed. The other background sources of blowing dust identified above contribute to violations of air quality standards but do not individually cause violations. Mitigation of the Owens Lake dust problem is currently the subject of a separate multi-agency study headed by GBUAPCD, with financial support from the State Lands Commission and LADWP.

Impacts to air quality in the Owens Valley are described in Chapter 12, Air Quality, for the period 1970 to 1990 and for the future, under the Agreement. These impacts and prescribed mitigation measures are described individually in Chapter 10, Vegetation.

In Chapter 10, Vegetation, 1,015 acres are identified as having been significantly affected by increased groundwater pumping since 1970. Five hundred seventy-five of these acres have been mitigated through enhancement/mitigation projects; the remaining 440 acres will be revegetated with vegetation native to the Owens Valley. Approximately 1,080 acres did not successfully revegetate after Los Angeles discontinued irrigation of approximately 10,000 acres to supply additional water for the second Los Angeles Aqueduct. Nine hundred sixty of these acres have been mitigated through on-site enhancement/mitigation projects, and the remaining 120 acres will be revegetated with native vegetation. Eight hundred ninety one acres are described in the Draft EIR as receiving impacts due to a combination of groundwater pumping and changes in surface water management and agricultural practices. Five hundred forty-one of these acres have been mitigated through

enhancement/mitigation projects, 50 acres will be planted with pasture grasses and subsequently irrigated, and the remaining 300 acres will be revegetated with native vegetation.

In addition, 640 acres in the Laws area are identified as having a very low density of vegetation cover. Although the condition of this land is not necessarily the result of the project, the area will be considered by the Inyo County/Los Angeles Standing Committee for selective mitigation.

One area of approximately 700 acres east of Independence was documented in 1982 as contributing to air quality standard violations, however, this condition has been mitigated through the establishment of alfalfa and native pasture under the Independence Pasture Lands and Springfield enhancement/mitigation project (approximately 40 acres remain to be planted with native pasture) described in Chapter 5, Proposed Project. No other sources in the Owens Valley are large enough to either cause or contribute to violations.

Since one of the primary goals of the Agreement is to avoid decreases in vegetation cover, vegetation damage and resulting impacts to air quality should be prevented. Additionally, under the Agreement, those lands in the Owens Valley irrigated during the 1981-82 runoff year or that have been irrigated since then will continue to be irrigated in the future. This will prevent adverse air quality impacts associated with abandoned agricultural lands. Any future significant impacts to the vegetation or environment of the Owens Valley must be promptly mitigated by Los Angeles.

Thus, while the combined impacts of the project to air quality in the Owens Valley may have contributed to some extent to the existing violations caused by Owens Lake, these impacts have been and will be mitigated so that the effect of dust from the project will not add in any significant way to the already significant dust problem from Owens Dry Lake.

G. Energy

COMMENT EN-1

The energy analysis is not detailed enough. What about energy savings if groundwater pumping were discontinued?

RESPONSE EN-1

In Chapter 13, Energy, Table 13-1 shows that about 1,100 KWH per acre foot of energy is generated annually by waters flowing through the second Los Angeles aqueduct. This includes all waters pumped as part of Los Angeles' increased water gathering activities. On page 13-4, paragraph 1, estimates are given of power generation and consumption along the Second Los Angeles Aqueduct System. Compared to the pre-project period, there was an approximate 88,400 MWH increase in electrical power generation, or an increase of about 28 percent; this increase was offset by the electrical power consumed by the pumps located at individual wells. As stated in sentence 7, the amount of energy consumed by pumping between 1970-1990 was about 220 KWH per acre foot, or about 20,900 MWH annually.

For the purposes of discussing energy consumption patterns in Owens Valley, 220 KWH would be conserved for every acre foot of groundwater not pumped; however, as pointed out in paragraph 2 on page 13-4, the resultant shortfall of about 880 KWH per acre foot would have to be made up from other sources. This would most likely mean an increase in burning of fossil fuels such as coal or fuel oil, with their resultant environmental impacts. Energy resources would still be consumed on a large scale in the process of delivering water to Los Angeles from another source such as the Metropolitan Water District. On page 13-5, paragraph 1, of the Draft EIR, an estimate is provided of the energy expenditure for water delivered by MWD of from 2,000 KWH per acre foot to 3,170 KWH per acre foot.

H. Cultural Resources

COMMENT CL-1

Impacts due to new wells and recharge basins or infiltration trenches are understated. More extensive archaeological resources exist than have been described in the Draft EIR.

RESPONSE CL-1

The analysis and evaluation of potential impacts to cultural resources presented in the Draft EIR are based on a review of data obtained from the Archaeological Information Center at U.C. Riverside and site reconnaissance by a professional archaeologist of the areas subject to disturbance due to proposed new facilities. This is standard practice for cultural resource assessments. As

described in Chapter 15, Cultural and Historical Resources, page 15-6, paragraph 1, a record search of the entire proposed project area was undertaken on January 19, 1990. All known cultural resource sites and previous surveys within one mile of the proposed 15 new well locations and two spreading basins were identified and plotted on maps. This information indicated that a total of 42 historic and/or prehistoric cultural sites are known to exist in the project area covered by the record search; of which five sites are located within one mile of a proposed well or spreading basin, the remainder are located within one mile of a proposed well or spreading basin boundary. No known cultural resource sites coincide precisely with locations of proposed new wells or spreading basins. In addition to the above, the general locations of proposed ancillary facilities were surveyed on foot by the archaeologist.

COMMENT CL-2

The archaeological investigation of the Draft EIR should have included subsurface testing. Its omission makes the analysis in the Draft EIR inadequate.

RESPONSE CL-2

Subsurface testing for archaeological resources as part of this program EIR would not be warranted. A schedule for installation of new wells and recharge facilities (enlargement of existing or construction of new spreading basins; or construction of infiltration trenches) has not been established. The analysis in the Draft EIR states that five cultural resource sites could be impacted due to construction of new wells, and 37 other sites are located within one mile of proposed new well areas or boundaries of spreading basins. Since the exact locations of these wells and recharge facilities have yet to be precisely determined, subsurface testing during the preparation of the Draft EIR would not preclude the need for additional testing when the final locations of new facilities are established. It was concluded that the significant impacts to cultural resources could occur. Appropriate mitigation measures were developed and presented in Chapter 16, Ancillary Facilities, page 16-14.

COMMENT CL-3

Indian tribes should have been consulted during preparation of the Draft EIR to ascertain existence of unrecorded resources. Local cultural resources have been impacted by past water gathering activities, and will continue to be impacted by water gathering in the future.

RESPONSE CL-3

It is acknowledged that local tribes were not consulted during preparation of the Draft EIR. As described in response to comment CL-1 above, the methodology used to identify known resources is a standard practice under CEQA. It should be noted however, that during the public review no additional sites were submitted by the local tribes to the authors of the Draft EIR for inclusion in this Final EIR.

LADWP is unaware of any impacts to local cultural resources due to water gathering operations or land management activities on Los Angeles-owned lands during the period of 1970 to 1990. As for the future, the mitigation measures contained in Chapter 16, Ancillary Facilities, at the top of page 16-14, would result in the evaluation and, if necessary, the recovery of any significant cultural resources due to new facilities. Under the provision of the Agreement, no impacts to Indian lands will be allowed to occur (see Agreement Section III.H, Management Strategy).

I. Ancillary Facilities

COMMENT AF-1

Analysis of ancillary facilities is not detailed enough and thus is inadequate. More information is needed on the precise location of new wells, and new or enlarged recharge basins.

RESPONSE AF-1

At this stage of the project, all ancillary facilities that can be defined are described in the Draft EIR in Chapter 5, Proposed Project, and Chapter 16, Ancillary Facilities. The information presented represents the latest concepts for location, design, and operation of proposed new wells and recharge facilities. This information and the subsequent impact analysis and description of mitigation measures are consistent with the level of detail and analysis required under CEQA for

a program EIR. The Draft EIR contains maps and drawings of well locations, and recharge facilities, respectively.

In the case of proposed new wells, the Draft EIR contains detailed discussion of potential environmental effects, beginning on page 16-14. Locations, production rates, well dimensions, etc are fully described in Chapter 16, Ancillary Facilities. Detailed discussion of the potential environmental effects of new wells begins on page 16-31 and addresses each environmental issue, e.g. geology, water resources, vegetation, etc.

Information concerning the location, design, and operation of enlarged or new recharge facilities is also presented in Chapter 16, Ancillary Facilities, in pages 16-1 through 16-14. On pages 16-4 and 16-5, the locations and design features of both the enlarged existing spreading basins in Big Pine and the proposed new infiltration trenches in the Laws area are described. Potential impacts with these facilities are also described by environmental issue, and corresponding mitigation measures have been identified.

COMMENT AF-2

No new wells should be drilled at or near Reinhackle Spring, Lone Pine Tree, and other sensitive areas.

RESPONSE AF-2

In the response to master comment WA-4, it is stated that groundwater pumping from wells that affect spring flow at Reinhackle Spring will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. As a result of this management, it is probable that no more than one of the three new wells (ISB-3, 4 and 5) located near Reinhackle Spring and identified in Chapter 16, Ancillary Facilities, of the Draft EIR (page 16-29) will be constructed as part of the project covered by this EIR.

In other spring areas, groundwater pumping from new and existing wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring associated vegetation.

In all other areas of the valley that could be affected by pumping from new or existing wells, groundwater pumping will be managed to avoid causing significant decreases or changes in vegetation or other significant effects on the environment. Concerning other sensitive areas, Section I.D.1 of the Green Book (page 31) describes the management of these areas.

Section I.D.2 (page 32) and Section I.D.3 (page 33) of the Green Book describe how certain vegetation of significant environmental value will be monitored and how mitigation plans will be developed for this vegetation, if necessary.

MITIGATION

COMMENT MT-1

There have been problems with past mitigation efforts by Los Angeles, and some of the efforts were not effective. Many of the past projects appear to have been intended to enhance, as opposed to mitigate, the effects of water gathering on the environment.

RESPONSE MT-1

For clarification, the two general types of projects implemented by LADWP during the period 1970 to 1990 are described below.

- o Environmental projects implemented between 1970 and 1984, mostly involving provision of water to ponds, sloughs, lakes, springs, and the lower Owens River for the purposes of wildlife habitat and forage, fisheries, and public recreation. These projects are described in Chapter 5, Proposed Project, page 5-19 of the September 1990 Draft EIR.
- o Enhancement/Mitigation projects implemented between 1985 and 1990 by LADWP and Inyo County. These projects involved provision of water for recreation, revegetation (as mitigation for blowing dust), regreening of public parks and former irrigated pasture in and around towns, wildlife habitat in ponds, and the Lower Owens River Rewatering Project.

In the case of many of these projects, their primary purpose was to enhance the environment of the Owens Valley; however, several projects also serve as mitigation of a significant effect of the project from 1970 to 1990. Those projects that serve as mitigation are described in Chapter 7 of

the Draft EIR. None of the projects described above were intended to enhance water gathering or export by Los Angeles.

In the case of the environmental projects, their purpose was primarily to restore habitat that had been affected due to water gathering. Areas in the valley were identified as having been adversely impacted due to water gathering. These areas may have exhibited vegetation decrease or change, or reduction in wildlife using a particular habitat. As a result, one of the main goals was to provide a regular water supply to a variety of habitats, such as ponds, lakes, sloughs, springs and the Lower Owens River. Objectives may have differed between projects, depending on the type of impact that may have occurred, but the overall goal of the environmental projects was to improve wildlife habitat and forage, fisheries, and public recreation facilities.

The enhancement/mitigation projects were established by a public process involving meetings with communities in the valley. Enhancement/Mitigation projects include revegetation of abandoned agricultural lands or lands that experienced vegetation loss due to groundwater pumping; regreening of public parks; improved wildlife habitat; and further rewatering of the lower Owens River. For each project specific goals and objectives were established, and environmental documentation was prepared under CEQA. After implementation, professional biologists from LADWP and Inyo County reviewed each project for consistency with its goals and objectives. Where applicable, these areas are described in the Draft EIR (e.g., vegetation, wildlife, and air quality) and a determination made of whether impacts have been mitigated consistent with the goals and objectives of each project.

Concerning problems with past mitigation by Los Angeles, see the response to master comment MT-2, which discusses this issue. In regard to projects implemented as enhancement/mitigation projects, the Technical Group periodically evaluates the effectiveness of these projects in achieving their intended purposes. These evaluations are presented in writing to the Standing Committee and are public documents. See response to master comment MT-4 which discusses continuation of the enhancement/mitigation projects identified as mitigation for significant effects of the project from 1970 to 1990.

COMMENT MT-2

Mitigations in the Green Book are experimental and thus not assured of mitigating effects on the environment. What happens if efforts are unsuccessful?

RESPONSE MT-2

Mitigation of Significant Effects - Agreement

A primary goal of the Agreement is to avoid causing significant decreases or changes in vegetation or other significant effects on the environment of the Owens Valley. Therefore, mitigation is not considered a primary management tool, but rather a secondary tool to be employed should impacts occur that are inconsistent with the goals of the Agreement.

If impacts occur, Section I.C.2 (pages 28 to 31) of the Green Book describes the procedures to be employed in developing, implementing and reporting on mitigation, including revegetation. Pursuant to these procedures, the Technical Group must establish a mitigation goal for each impact, consider all options for achieving the goal and adopt a mitigation plan. The Technical Group must report at least once a year to the Standing Committee on the effectiveness of mitigation in achieving its goal. If a mitigation plan fails to substantially achieve its goals, the Technical Group is required to implement alternative, feasible mitigation, if any exists, that will achieve the goals. If no such alternative exists, a new mitigation goal is to be developed and implemented for the area and a report is to be made to the Standing Committee explaining the reasons for the change.

The Technical Group must consider all feasible options of alternative mitigation if the recommended mitigation should fail to achieve its goals. If there are no identified acceptable or feasible mitigation options, and the described mitigation is unproven, then the Technical Group will make every reasonable effort to successfully implement the unproven mitigation.

Mitigation of Significant Effects - 1970 to 1990

For each mitigation measure for a significant effect identified in the EIR which has not already been mitigated, the Technical Group will develop and implement a mitigation plan pursuant to the procedures of the Green Book described above. A mitigation plan and schedule for each

significant effect identified in the EIR will be developed not later than one year after final approval of this EIR. If the means of implementing a mitigation measure described in the EIR are unproven, the Technical Group will make every reasonable effort to successfully implement the mitigation measure.

It must be noted that if, despite efforts to mitigate an impact, past or future, there is no feasible mitigation option, there will be an unmitigated, unavoidable significant effect on the environment.

COMMENT MT-3

Off-site compensatory mitigation must not be accepted when it has not been conclusively demonstrated that on-site, in-kind mitigation is infeasible.

RESPONSE MT-3

This comment expresses an opinion as to a desired policy, although implementation of the desired policy is not required by law. It should be noted that there is no legal requirement under CEQA that compensatory mitigation not be implemented unless it is conclusively demonstrated that on-site mitigation is infeasible. The CEQA Guidelines (Section 15370) describe five kinds of mitigation measures as follows:

- a. Avoiding the impact altogether by not taking certain action or parts of an action;
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- c. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and;
- e. Compensating for the impact by replacing or providing substitute resources or environments.

The CEQA Guidelines do not establish any preference among the five types of mitigation, nor does CEQA require the selection of a particular type of mitigation. However, Section 15126(c) of the

Guidelines does require that, where several mitigation measures are available to mitigate an impact, each measure must be discussed and the basis for selecting a particular measure must be identified.

Significant Effects - 1970 to 1990

The response to master comment MT-8 discusses mitigation options. As described above, even if an on-site mitigation measure is identified, a project proponent is not required to select it. In fact, if it is found by an entity that specific economic, social or other considerations make infeasible any mitigation for an identified effect, it may nonetheless proceed with a project without such mitigation if it finds that the benefits of a project outweigh its unmitigated adverse effects.

Significant Effects - Agreement

Section I.C.2 (pages 28 to 31) of the Green Book describes the procedures for developing, implementing and reporting on mitigation for any significant effects that might occur in the future. (See the response to master comment MT-2 for a description of these procedures.) Concerning compensatory mitigation, it should be noted that on page 28, the Green Book provides:

Generally, compensatory mitigation (compensating for an impact to the environment by improving or enhancing an area located away from the affected area) would not be a preferred goal of a mitigation plan.

COMMENT MT-4

Mitigation programs should not be allowed to be discontinued upon mutual consent of Los Angeles and Inyo County, as provided in Section X, Enhancement/Mitigation Projects, of the Agreement.

RESPONSE MT-4

Section X (page B-34) of the Agreement provides in pertinent part:

All existing enhancement/mitigation projects will continue unless the Inyo County Board of Supervisors and the Department, acting through the Standing Committee, agrees to modify or discontinue a project. Periodic evaluations of the projects shall be made by the Technical Group.

2. Master Comments and Responses

This provision of the Agreement gives LADWP and Inyo County the flexibility to modify or terminate enhancement/mitigation projects as future conditions may warrant. However, no enhancement/mitigation project which is an identified mitigation measure for impacts of the project will be modified or discontinued except in full compliance with CEQA, and unless the Standing Committee finds that either:

1. The enhancement/mitigation project as modified will continue to reduce the identified adverse effect of the project to a level which is less than significant; or
2. A new mitigation measure will be implemented which will reduce the identified adverse effect of the project to a level which is less than significant.

In its periodic evaluation of each enhancement/mitigation project identified as a mitigation measure by this EIR, the Technical Group will report on the effectiveness of the measure in reducing an adverse effect of the project to a less than significant level. An evaluation of such enhancement/mitigation projects will be made at least annually to the Standing Committee.

COMMENT MT-5

All cumulative impacts, including those impacts associated with the first Los Angeles Aqueduct must be mitigated in this EIR.

RESPONSE MT-5

CEQA Guidelines (Section 15130) require that the cumulative impacts of a proposed action "shall be discussed when they are significant." Cumulative impacts are defined by the Guidelines as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In a cumulative impact analysis the potential for cumulative effects becoming greater than the sum of various individual, isolated impacts is evaluated. CEQA Guidelines call for evaluating the cumulative impacts of projects past, present, and anticipated, relevant to the proposed project.

Under CEQA, mitigation of a significant effect of Los Angeles' water gathering activities to supply its first aqueduct is required only if an effect of such activities, when combined with an effect of the project, causes a significant cumulative effect on the environment. Thus, under existing law,

a significant effect resulting from Los Angeles' pre-project activities alone, is not required to be mitigated.

Cumulative Effects - 1970 to 1990

In evaluating the cumulative effects of the project in relation to Los Angeles' pre-project activities, a compilation was made of all known environmental effects in the Owens Valley. This compilation was based upon studies conducted by USGS and others, available data and the best judgement of the authors. A determination was then made as to the cause of each effect. Three categories were established: 1) effects caused by pre-project activities, 2) effects caused by the project between 1970 and 1990, and 3) effects caused by pre-project activities that were potentially worsened by effects of the project from 1970 to 1990. Once the effects were so categorized, it was determined whether an effect in either category two or three was a significant effect on the environment. For all effects of the project (category two) that were determined to be significant, mitigation measures were identified and are described in the Draft EIR.

Concerning the effects that were caused by pre-project activities, but which were potentially worsened by the effects of the project from 1970 to 1990, a determination was made whether activities under the project from 1970 to 1990 actually worsened the pre-existing effect. In many cases, it was very difficult to make such a determination. For instance, in a poorly vegetated field where irrigation was discontinued in the 1930s, it was difficult to determine whether it was the abandonment of irrigation alone that resulted in the current poor vegetation conditions or whether groundwater pumping since 1970 aggravated the pre-existing problem. In the instances where it was determined that it was probable that activities under the project from 1970 to 1990 worsened a pre-project effect to a level deemed significant, mitigation measures were identified. Examples are 640 acres in the Laws area (Impact 10-18) and 20 acres near Big Pine (Impact 10-19).

Cumulative Effects - Agreement (Post-1990)

A primary goal of the Agreement is to manage future groundwater pumping and surface water to avoid causing significant decreases and changes in vegetation from that which existed in the 1984-87 period. Also, under the Agreement, lands currently irrigated will continue to be irrigated in the future. Should any significant effect to the Owens Valley environment occur in the future, it must be mitigated in accordance with procedures described in the Green Book. Therefore, it was

determined that activities under the Agreement, when combined with the pre-project and the 1970 to 1990 effects of LADWP's activities, will not cause any significant effects to the environment.

COMMENT MT-6

The description of Lower Owens River Project is inadequate. The Lower Owens River Project only mitigates impacts of the first Los Angeles Aqueduct, and not the second aqueduct. It is not acceptable for impacts on springs, seeps, and wetlands due to the second aqueduct.

RESPONSE MT-6

A description of the proposed Lower Owens River Project is presented in Appendix C-2. Appendix C-2 contains information related to the project goals, components, operations, and management. As noted in Chapter 5, Proposed Project, page 5-22 of the September 1990 Draft EIR, the Lower Owens River Project will be the subject of a separate EIR, and it is in addition to the existing lower Owens River rewatering project described on page 5-21.

The proposed Lower Owens River Project is consistent with mitigation concepts of CEQA. It is believed that the environmental benefits of the Lower Owens River Project will be substantial to vegetation, fish and wildlife in Owens Valley. It is acknowledged that the riparian habitat (including wetlands) created and enhanced by this project differs from that associated with springs and seeps on the valley floor; however, it is believed the environmental benefits associated with the project, in terms of new and healthier habitat, serves as mitigation of a compensatory nature for effects to spring and seeps caused by the project between 1970 and 1990.

COMMENT MT-7

How was it determined that a significant effect on the environment was reduced to a less than significant level through mitigation?

RESPONSE MT-7

This comment relates to the analysis contained in the Draft EIR pertaining to the identification and evaluation of significant impacts that occurred during the period of 1970 to 1990. For each impacted area described in the Draft EIR, each potential impact is evaluated in the context of the

standard of significance referenced at the beginning of each impact analysis. Please refer to response to master comment MT-1 for a discussion of environmental and E/M projects. Also refer to response to master comment MT-8.

The mitigation measures identified in the Draft EIR for the significant effects of the project to Owens Valley vegetation between 1970 and 1990 were selected from among a range of mitigation goals and from a range of management alternatives to achieve the chosen goal. Please see response to master comment MT-8. Since Inyo County and LADWP often had differing ideas on the type or the degree of mitigation for an identified significant effect of the project, the selection of a mitigation measure in many instances was a compromise resulting from negotiation.

COMMENT MT-8

The Draft EIR does not adequately discuss the alternatives to the mitigation measures identified for each significant effect of the project from 1970 to 1990 and the reason for selecting a particular measure.

RESPONSE MT-8

The mitigation measures identified in the Draft EIR for the significant effects of the project to Owens Valley vegetation between 1970 and 1990 were selected from among a range of mitigation goals and from a range of management alternatives to achieve the chosen goal. Since Inyo County and LADWP often had differing ideas on the type or the degree of mitigation for an identified significant effect of the project, the selection of a mitigation measure in many instances was a compromise resulting from negotiation. Off-site mitigation of a compensatory nature was an alternative in all of the instances discussed below.

The options for mitigation of impacts to groundwater dependent vegetation due to groundwater pumping are:

1. Manage groundwater pumping to allow water tables to return and be maintained at pre-project levels. Once water tables are at this level, a) allow the affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort. The potential for success of such a

revegetation effort is unknown because, once impacted, it may not be possible to restore a site to its previous plant cover.

2. Manage groundwater pumping in accordance with the goals of the Agreement, but supply surface water and/or pumped groundwater to the affected area. Once this has occurred, a) allow the area to naturally revegetate, or b) restore the vegetation to its natural composition and cover to the extent possible through an active revegetation effort.
3. Manage groundwater pumping in accordance with the goals of the Agreement and establish an irrigated crop (i.e., pasture, alfalfa, or other crop) supplied with surface water and/or pumped groundwater.
4. Manage groundwater pumping in accordance with the goals of the Agreement and revegetate with species native to the Owens Valley that are not dependent on high groundwater levels and would require no irrigation once established.

Mitigation alternative three was selected for impacts identified in the following areas: Independence Springfield, 30 acres east of Independence, 30 acres northeast of Big Pine, and the Shepherd Creek alfalfa field.

Mitigation alternative two was selected for a total of 60 acres located in three areas east of the Symmes/Shepherd well field. Alternative four was selected for a total of 80 acres in the Taboose Creek/Hines Spring area. Approximately 300 acres in the Five Bridges area are being mitigated through a combination of alternatives one and two; that is, pumping has been discontinued in the area, surface water has been supplied to stimulate natural revegetation and active revegetation has occurred in a portion of the area.

The options for mitigation of impacts to springs and seeps due to groundwater pumping are:

1. Manage groundwater pumping to allow the flow at the affected spring or seep to resume. Once an adequate flow has resumed, a) allow the affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort.
2. Manage groundwater pumping in accordance with the goals of the Agreement, replace the previous water resource with surface water and/or pumped groundwater and a) allow the

affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort.

3. Manage groundwater pumping in accordance with the goals of the Agreement and revegetate the area with species native to the Owens Valley that are not dependent on high groundwater levels or groundwater available at the ground surface and would require no irrigation once established.

Mitigation alternative two was selected for mitigation of impacts at Big and Little Seeley springs, Hines Spring and Little Blackrock Spring. Impacts to Fish Springs and Blackrock Spring will receive compensatory mitigation through the Lower Owens River Project.

The options for mitigation of impacts due to abandonment of agriculture are:

1. Reestablish a cultivated crop (i.e., pasture, alfalfa, or other crop) and irrigate with surface water or pumped groundwater.
2. Revegetate with species native to the Owens Valley that are not dependant on high groundwater levels and would require no irrigation once established.

Mitigation option one was selected for the Independence Pasture Lands, Van Norman Field, Richards Field, Lone Pine Woodlot, a seven-acre field along Whitney Portal Road and an 11-acre field east of Highway 395 in Lone Pine. Approximately 120 acres near Bishop will be mitigated through alternative two. In addition, the loss of meadow and riparian vegetation that was supplied by tailwater from formerly irrigated lands will receive compensatory mitigation through the Lower Owens River Project.

The options for mitigation of impacts caused by a combination of groundwater pumping, changes in surface water management, abandonment of agriculture, water spreading, and/or livestock grazing are:

1. Discontinue the water and/or land management activities that caused the impact and either allow natural revegetation to occur or actively rehabilitate the site by planting native vegetation but not necessarily to achieve the same cover or composition.

2. Master Comments and Responses

2. Continue the water and/or land management activities that caused the impact, supply surface water or pumped groundwater, and either allow natural revegetation to occur or actively rehabilitate the vegetation to its original cover.
3. Continue the water and/or land management activities that caused the impact, establish a cultivated crop (i.e., pasture, alfalfa, or other crop) and irrigate with surface water or pumped groundwater.
4. Continue the water and/or land management activities that caused the impact and revegetate with species native to the Owens Valley that are not dependent on groundwater and would require no irrigation once established.

Mitigation alternative three was selected for approximately 140 acres in the Laws area, as well as for the Laws-Poleta Pasture Land project. This alternative will also be employed on 20 acres east of Big Pine. Mitigation alternative four was selected for 160 acres near Big Pine and the Inyo/Los Angeles Standing Committee will consider implementing this alternative on another 640 acres in the Laws area. The loss of marsh habitat in the Thibaut/Sawmill area will receive compensatory mitigation through the Lower Owens River Project.

SUMMARY

COMMENT S-1

The Draft EIR Summary makes it unclear whether, under the vegetation management goals of the Agreement, the 1984-87 period or the 1981-82 period serves as the base of comparison for determining decreases and changes in vegetation.

RESPONSE S-1

The vegetation conditions as inventoried between 1984 and 1987 serve as the base of comparison for determining decreases and changes in vegetation under the management goals of the Agreement.

The confusion arises because the Agreement provides that lands owned by Los Angeles that were irrigated in the 1981-82 runoff year or thereafter will continue to be irrigated. To avoid this

confusion over these differing time periods, the second paragraph on page S-6 of the Draft EIR is revised to read as follows:

The Agreement provides that land owned by Los Angeles that was supplied with water or irrigated in the 1981-82 runoff year or thereafter will continue to be supplied with water or irrigated in the future. It also provides that there will be no significant future reductions in recreational uses and wildlife habitat that have been dependent on water supplied by Los Angeles in the 1981-82 runoff year or thereafter.

3. REVISIONS TO THE AGREEMENT AND DRAFT EIR

3. REVISIONS TO THE AGREEMENT AND DRAFT EIR

3.1 REVISIONS TO THE AGREEMENT

- o Table of Contents: A revised Table of Contents to the Stipulation and Order is presented at the end of this chapter.
- o Page B-3: line 1, add - Paul N. Bruce, County Counsel; delete - County Counsel after Gregory L. James; delete - Cosby after Antonio
- o Page B-3: line 2, replace "Counsel" with "Counsels"
- o Page B-9: line 2, replace "lease" with "least"
- o Page B-11: line 11, replace "149,800" with "150,347"
line 17, replace "10,900" with "10,390"
line 26, replace "42,000" with "42,013"
- o Page B-12: line 7, replace "5,000" with "5,580"
line 13, replace "18,000" with "18,830"
- o Page B-19: line 1, is revised to read:
". . . in vegetation have occurred (see section IV.B), provisions for . . ."
- o Page B-30: line 7, sixth word, "an" is replaced with "and".

- o Page B-45, line 18, to B-48, line 7, Sections XIV.C and XIV.D, are replaced with the text below:

C. WATER AND ENVIRONMENTAL ACTIVITIES

The Department shall assist the County in funding water and environmentally related activities by making an annual payment to the County. The first payment shall be made within sixty (60) days of approval of this Stipulation and Order by both the County and Los Angeles. The amount of the first payment shall be the sum of eight hundred twenty thousand five hundred eighty dollars (\$820,580.00) minus the amount of any previous payments made by the Department to the County for these activities during the 1991-92 fiscal year.

After the initial payment, an annual payment shall be made by July 10th of each subsequent year. The amount of the first such payment shall be eight hundred twenty thousand five hundred eighty dollars (\$820,580.00) adjusted upward or downward in accordance with the Los Angeles-Anaheim-Riverside All Urban Consumers Price Index or its successor. Each year thereafter, the amount of the annual payment shall be the amount of the previous year's payment adjusted in accordance with said consumer's price index. The maximum adjustment shall not exceed five (5) percent in any year. Annual funding shall be placed in trust by the County and shall be used only for purposes of operation and maintenance of water and environmentally related activities. If at anytime one million five hundred thousand dollars (\$1,500,000.00) or more is accumulated in the trust, the Department shall not be required to make an additional annual payment until the funds in the trust are less than eight hundred twenty thousand five hundred eighty dollars (\$820,580.00) as of June 30th of any year.

This annual funding will be discontinued as of the date of a final decision by a court to disapprove this Stipulation and Order. This annual funding shall continue unless the Inyo County Board of Supervisors and the Department agree that the program is to be reduced in scale or terminated.

D. GENERAL FINANCIAL ASSISTANCE TO THE COUNTY

To assist the County in providing services to its citizens, the Department shall make an annual contribution to the County. The first contribution shall be made within sixty (60) days of approval of this Stipulation and Order by both the County and Los Angeles. The amount of the first payment shall be the sum of one million two hundred twenty-one thousand six hundred eighty-five dollars (\$1,221,685.00) minus the amount of any previous contributions made by the Department to the County for these services during the 1991-92 fiscal year.

After the initial contribution, an annual contribution payment shall be made by July 10th of each subsequent year. The amount of the first annual contribution payment shall be one million two hundred twenty-one thousand six hundred eighty-five dollars (\$1,221,685.00) adjusted in accordance with the formula for assessment of Los Angeles-owned property as set forth in present Article XIII, Section 11 of the California Constitution. Each year thereafter,

the amount of the annual contribution payment shall be the amount of the previous year's payment adjusted in accordance with said formula.

In the event that Los Angeles' existing geothermal leases in the Coso Geothermal are of Inyo County are developed in such a manner that the County receives possessory interest taxes on such leases, such taxes received by the County shall be credited to the Department for up to one-half of the total annual general financial contribution to the County. Such credit shall only be made if the possessory interest taxes received are not subject to a claim for refund, legal challenges, or to refund for other reasons.

These annual contribution payments will be discontinued as of the date of a final decision by a court to disapprove this Stipulation and Order.

- o Page B-48: line 8, heading E is revised to read:
E. Big Pine Ditch System
- o Page B-50: line 1, heading G is revised to read:
F. Park and Environmental Assistance to City of Bishop
- o Page B-50: line 17, is revised to read:
". . . with the Los Angeles - Anaheim - Long Beach All Urban . . ."
- o Page B-52: line 28 is revised to read:
C. ADDITIONAL SALES
- o Page B-53: line 18, heading C is revised to read:
D. LANDS FOR PUBLIC PURPOSES
- o Page B-53: line 25, heading D is revised to read:
E. WITHDRAWN LANDS
- o Page B-55: line 7, section heading "XVIII." is revised to read "XVII."
- o Page B-57: line 9, section heading XXI. is revised to read:
XXI. NO EFFECT ON NON-PARTY LEGAL RIGHTS

- o Page B-58: between lines 18 and 19 insert new heading:
XXV. MODIFICATIONS
- o Page B-59: between lines 5 and 6 insert new subheading:
A. SUBJECT MATTER
- o Page B-60: between lines 11 and 12 insert new subheading:
B. TECHNICAL GROUP AND STANDING COMMITTEE
- o Page B-60, lines 12 through 14 are revised to read:
Disputes between the parties arising out of this Stipulation and Order, the Green Book, or the EIR shall be submitted to the Technical Group and the Standing Committee for resolution as follows:
- o Page B-61: line 20, heading C is revised to read:
C. MEDIATION/TEMPORARY ARBITRATION
- o Page B-62 line 21, heading D is revised to read:
D. SUPERIOR COURT JUDGE
- o Page B-64: line 13, heading E is revised to read:
E. EFFECT OF COURT RESOLUTION
- o Page B-64: line 21, heading XXVIII. is revised to read:
XXVII. INYO SUPERIOR COURT CASE NO. 12883
- o Page B-64: line 26, heading XXIX. is revised to read:
XXVIII. INYO SUPERIOR COURT CASE NO. 12908
- o Page B-65: line 15, heading XXX. is revised to read:
XXIX. ENTRY OF JUDGMENT

3. Revisions to the Agreement and Draft EIR

- o Page B-65: line 18, heading XXXI. is revised to read:

XXX. PARAGRAPH HEADINGS
- o Page B-65: line 22, heading XXXII. is revised to read:

XXXI. NOTICES
- o Page B-66: line 24, the authorizing signatures for Inyo County are revised to read as follows:

Paul N. Bruce, County Counsel
Gregory L. James, Special Counsel
- o Page B-66: line 27, a new authorizing signature line is added to read:

By _____
Paul N. Bruce
- o Page B-67: line 1, an authorizing signature line is added to read:

By _____
Gregory L. James

3.2 REVISIONS TO THE DRAFT EIR

LIST OF FIGURES

- o Page viii: Figure 14-4 title is revised to read:
"Acres of Irrigated LADWP Lands in Inyo and Mono Counties, 1971-1988"

SUMMARY

- o Page S-2: As given, the scale for Figure S-1 is not correct. A corrected Figure S-1 is presented in this chapter.
- o Page S-5: paragraph 1 is revised to read:
A reduction in the amount of irrigated acreage of Los Angeles-owned land that was irrigated prior to 1968 (from 21,800 acres of irrigated agricultural acreage prior to 1968 to 11,600 acres of irrigated agricultural acreage today, plus 2,600 acres irrigated as part of enhancement/mitigation projects and land purchases by Los Angeles in the Olancho/Cartago area).
- o Page S-6: paragraph 2 is replaced with the following:
The Agreement provides that land owned by Los Angeles that was supplied with water or irrigated in the 1981-82 runoff year or thereafter will continue to be supplied with water or irrigated in the future. It also provides that there will be no significant future reductions in recreational uses and wildlife habitat that have been dependent on water supplied by Los Angeles in the 1981-82 runoff year or thereafter.
- o Page S-11: first complete paragraph, second sentence is revised to read:
Measures to mitigate or compensate for the adverse effects have been developed and include enhancement and mitigation projects already implemented by LADWP, mitigation measures provided for in the Agreement and mitigation measures developed as part of the EIR preparation process (including up to approximately 1,100 acres of revegetation). See Chapter 7.
- o Page S-11: following paragraph 2, insert paragraph below:
In the original draft of the Agreement, "significant" was included among the terms as defined under CEQA; however, in response to public comments requesting a more detailed definition of significance, the August 1989 draft was revised by the addition of Section IV.B (pages B-22 through B-24), regarding the determination of significance and significant effect on the environment. The guidelines for making

this determination are found in the Green Book, Section I.C (pages 19 through 27). However, should it be believed that a significant effect on the environment (as defined under CEQA) has or will occur due to the project, any person may bring the matter to the attention of Los Angeles or Inyo County and/or employ any other available legal right or remedy, including CEQA.

- o Page S-17: footnote #1 is revised to read:

Because of this, the estimated increase of 60,000 AFY water export from the Owens Valley from the pre-project to the Agreement shown on Table S-1 above, differs from the 42,000 AFY increase used in this comparison.

CHAPTER 1, INTRODUCTION

- o Page 1-1: paragraph 4, last sentence is revised to read:

". . . Inyo National Forest, except that the Inyo Mountains south of Pat Keyes Canyon is administered by the Bureau of Land Management."
- o Page 1-2: As given, the scale for Figure 1-1 is not correct. A corrected Figure 1-1 is presented in this chapter.
- o Page 1-6: last paragraph, second sentence is revised to read:

The public review period will be from September 28, 1990 to January 4, 1991.
- o Page 1-7: paragraph 1, first sentence is revised to read:

Public meetings in Inyo County on the Draft EIR will be held beginning in late November 1990.
- o Page 1-8: paragraph 3, third sentence is revised to read:

The filing of this notice initiates a 30-day statute of limitations period under CEQA for court challenges to the adequacy of the Final EIR.
- o Page 1-8: paragraph 5 is replaced with the following:

This Draft EIR is part of a multi-volume set of documents relating to the proposed plan. The first volume contains the Draft EIR. The Stipulation and Order, which sets forth the Agreement on a Long-Term Groundwater Management Plan for Owens Valley and Inyo County, and the Technical Appendices to the Draft EIR are contained in Volume Two. The Green Book is Volume Three. The Final EIR,

containing responses to comments received during the public review period, will be contained in additional volumes. The Draft EIR is organized into the following sections:

CHAPTER 2, HISTORY OF WATER DEVELOPMENT IN OWENS VALLEY

- o Page 2-9: paragraph 2, third sentence is revised to read:

The land exchange gave to Los Angeles 2,914 acres of land in various locations throughout the Valley.
- o Page 2-9: following paragraph 2, insert paragraph below:

Los Angeles believes that the 1938 agreement between the United States and Los Angeles and LADWP transferred water rights from the lands conveyed by the United States to the lands acquired from Los Angeles. Similarly, the water rights attached to the lands conveyed by Los Angeles were transferred to the lands it received from the United States. In furtherance of that transfer and for the several purposes recited in the exchange agreement, Los Angeles agreed to deliver in perpetuity to the United States quantified amounts of water by surface conveyance at the exterior boundaries of the lands acquired by the United States, for use on such lands. The United States was further permitted to divert surface water from streams running through said lands conveyed to the United States, provided that such amounts would be deducted from the surface deliveries Los Angeles and LADWP were obligated to make. Those obligations of Los Angeles and LADWP to make surface deliveries of water are not affected by the Agreement between Los Angeles and Inyo County. Los Angeles will continue to meet its obligations to deliver water to the Indian Reservation lands described in the exchange agreement pursuant to the terms and conditions of said agreement.
- o Page 2-18: paragraph 3, line 3, "Volume One" is corrected to read "Volume Two."
- o Page 2-19: footnote #9, text is corrected to read ". . . Rossmann . . ."
- o Page 2-19: footnote #13, text is corrected to read ". . . Rossmann . . ."

CHAPTER 3, WATER SUPPLY FOR LOS ANGELES

- o Page 3-2: Table 3-1, last line on year "1990" is revised to read "1990 (est.)"

- o Page 3-14: Table 3-5 is revised as follows:

TABLE 3-5
CITY OF LOS ANGELES WATER SUPPLY SOURCES

	1963 - 1970		1971 - 1980		1981 - 1989	
	AFY	%	AFY	%	AFY	%
Groundwater from Los Angeles Basin	107,900	20	87,400	15	110,000	17
Purchases from MWD	96,300	18	42,200	7	87,000	13
Los Angeles Aqueduct	334,300	62	446,800	78	468,700	70
TOTAL	538,500	100	576,400	100	665,700	100

Source: LADWP Statistical Reports

- o Page 3-15: Table 3-6, second line of title is corrected to read "1970-1989"
- o Page 3-22: paragraph 3 is revised to read:

The Metropolitan Water District of Southern California (MWD), formed in 1928, covers over 5,100 square miles of the coastal plain in Southern California, including portions of the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. MWD's purposes include development and sale of water at wholesale for municipal and domestic uses and purposes. It may sell surplus water for other beneficial purposes, including agriculture. There are 27 member agencies in Metropolitan, consisting of 14 cities, 12 municipal water districts, and one county water authority. The City of Los Angeles is one of these member agencies.
- o Page 3-22: paragraph 4, last sentence is revised to read:

MWD had 2,600,000 acre-feet of water available in 1990 resulting in a Los Angeles preferential right of about 600,000 AFY.
- o Page 3-23: paragraph 2 is revised to read:

The main sources of water supply available to the service area of MWD are: captured local surface flows; groundwater; imports via the Colorado River Aqueduct, the Los Angeles Aqueduct, and the State Water Project's California Aqueduct; and reclaimed water. The sources directly available to MWD are limited to the Colorado River and State Water Project (SWP) supplies and water made available through its Local Projects Program. MWD is increasing its demand-reducing water

conservation measures by implementing Best Management Practices and Conservation Credit programs. Colorado River water is conveyed to Southern California by MWD's 242-mile long Colorado River Aqueduct. SWP water is conveyed from Northern to Southern California by means of the 444-mile long California Aqueduct. MWD's entitlement to water from the Colorado River totals 1.212 million AFY and SWP totals 2.0115 million AFY. However, MWD's dependable supply from the Colorado River has been limited to less than 550,000 AFY since the Central Arizona Project began operations. Furthermore, the SWP cannot yet deliver MWD's full entitlement. In 1990, MWD imported a total of about 2.6 million AFY through these two aqueducts. The projected future supply and demand in the MWD service area is shown in Table 3-7.

- o Page 3-25: both paragraphs under the heading MWD's Colorado River Supply are revised to read:

In accordance with a 1964 U.S. Supreme Court decree, the State of California (MWD, Native Americans, and several agricultural water districts) is limited to an annual supply of 4.4 million acre-feet from the Colorado River unless surplus or unused Arizona and Nevada water is made available by the Secretary of the Interior. Agricultural agencies have priority to beneficial consumptive use of 3.85 million AFY less the amount of water made available by Imperial Irrigation District under the 1988 Water Conservation Agreement and 1989 Approval Agreement with MWD. Another 40,000 acre-feet must be subtracted for conveyance losses and for use of water by holders of present perfected rights, including Native Americans, leaving MWD with a dependable annual supply of 616,110 acre-feet in 1995. Use of additional present perfected rights may reduce dependable annual supply to 591,110 AFY.

Since the States of Arizona and Nevada have not yet taken their full apportionments, surplus and unused water has been available from the Colorado River for MWD since Central Arizona Project operation began. The MWD has benefitted from these conditions during the recent drought and has diverted up to 1.3 million AFY from the river. With continuing development of the Central Arizona Project, the supply available to MWD in 1991 is estimated to be 900,000 acre-feet. As Arizona and Nevada take more of their apportionments, MWD may receive less Colorado River water.

- o Page 3-25: paragraph 3, under the heading MWD's State Water Project Supply, third and fourth sentences are revised to read:

This entitlement was contracted to meet increasing water demands resulting from population growth, and to compensate for the impending loss of a major portion of MWD's Colorado River supply. SWP deliveries for calendar year 1990 were 1.4 million acre-feet.

- o Page 3-25: paragraph 4, first and second sentences are revised to read:

Bonds to construct the initial portion of the SWP were authorized by the State's voters in 1960, with construction taking place in the 1960s and 1970s. The principal facilities of the SWP are Oroville Reservoir on the Feather River, San Luis Reservoir in the San Joaquin Valley, the California Aqueduct and the North and South Bay Aqueducts, and terminal reservoirs in Southern California.
- o Page 3-26: first complete paragraph, last sentence is revised to read:

The California Department of Water Resources is using a staged approach for new facilities. New pumps at Harvey O. Banks Pumping Plant are currently under construction. Plans for other facilities are being developed, but none have been approved or built.

CHAPTER 4, WATER MANAGEMENT IN OWENS VALLEY

- o Page 4-3: Figure 4-1, the horizontal scale in the center of the figure is deleted.
- o Page 4-9: Figure 4-1, first complete paragraph, third sentence is revised to read:

Pumping was as high as 136,100 AFY in water year 1931 (October 1930-September 1931).
- o Page 4-17: Figure 4-9 is replaced with new figures shown at the end of this chapter.

CHAPTER 5, PROPOSED PROJECT

- o Page 5-5: paragraph 1, footnotes #4 and #5 are deleted.
- o Page 5-5: paragraph 3, third and fourth sentences are revised to read:

Such area may include riparian vegetation dependent on springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices have resulted in severe stress that could cause a significant decrease or change in this vegetation, such action will be taken as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.
- o Page 5-7: paragraph 2, second sentence, footnote #6 is deleted.

3. Revisions to the Agreement and Draft EIR

- o Page 5-8: paragraph 4, second sentence is revised to read:

For the average year scenario, runoff was assumed to be 310,000 AFY, the average runoff recorded to date, runoff years 1935-36 to 1988-89.
- o Pages 5-10 and 5-11: Figures 5-2 and 5-3 are replaced with new figures shown at the end of this chapter.
- o Page 5-13: Table 5-1, footnote #2, after the words "to date" add:

"(i.e. runoff years 1935-36 to 1988-89)"
- o Page 5-16: following paragraph 4, insert paragraph below:

Some people believe that under the "Chandler Decree" of 1922, Los Angeles is prohibited from exporting any water from Bishop Creek out of the Bishop area, and is required to divert and use such water on its lands on the Bishop Cone. Opinions on how a court would rule on this interpretation of the Chandler and Hillside Decrees have been prepared by Professor Joseph Sax of the University of California, an eminent authority on water law and the public trust doctrine, and by Inyo County's Special Legal Counsel, Antonio Rossmann. They have concluded that the Chandler Decree does not prohibit Los Angeles from exporting the waters of Bishop Creek from the Bishop Area, nor does it require Los Angeles to divert and use such waters on its lands on the Bishop Cone. They also conclude that the Agreement does not violate the Hillside Decree. These opinions are presented in Appendix A-4 to the Response to Comments document.
- o Page 5-18: paragraph 3, second line, "1984" is revised to read "1985."
- o Page 5-19: Table 5-2, in description of Klondike Lake, the word "permanent" is deleted.

CHAPTER 6, ALTERNATIVES TO THE PROPOSED PROJECT

- o Page 6-5: paragraph 1, last sentence before parenthetical sentence, is revised to read:

Runoff for the no project alternative in this chapter is assumed to be 310,000 AFY, or the average runoff recorded to date, runoff years 1935-36 to 1988-89.
- o Page 6-5: paragraph 4 (bulleted), first sentence is revised to read:

Groundwater pumping would range from zero in wet years to as much as 142,600 AFY in dry years (this is the actual amount pumped in calendar year 1931).

- o Page 6-27: paragraph 1, last sentence, after the word "effects" insert:

" . . . and there may be direct benefits to Los Angeles such as improved water quality in Santa Monica Bay due to reduced flow at the Hyperion Sewer Treatment Facility; and there may be some modest energy savings as a result of the reductions in hot water use."

- o Page 6-31: paragraph 1, second and third sentences are revised to read:

Agricultural users in the Imperial, Palo Verde, Yuma and Coachella valleys have a priority to a beneficial consumptive use of 3.85 million AFY of California's 4.4 million AFY apportionment, less the amount of water made available by Imperial Irrigation District under a 1988 Water Conservation Agreement and 1989 Approval Agreement with MWD. MWD has the next priority for use of 550,000 AFY, plus an additional 662,000 AFY of any water available for California.

- o Page 6-31: paragraph 2 is revised to read:

As other basin states take more of the water to which they are entitled, less water will likely be available for California. In December 1985, the Central Arizona Project commenced operations and under the reservoir system operating criteria, the Secretary of the Interior annually determines the availability of water. In the future, MWD will likely be limited to 616,110 AFY, plus an unknown amount of surplus and unused water in certain years unless it is successful in negotiating agreements with the other California agencies to make additional water available. MWD expects to receive about 900,000 acre-feet from the Colorado River in 1991.

- o Page 6-32: paragraph 3, last sentence is revised to read:

If the SWRCB promulgates new standards for the Delta that are stricter than those in effect today, the SWP's ability to deliver water south of the Delta could be reduced.

- o Page 6-33: paragraphs 1 through 3 are revised to read:

An agreement between MWD and the Imperial Irrigation District will improve Imperial's irrigation efficiency and provide 106,110 acre-feet of water annually to MWD. Similarly, legislation authorizing the Secretary of the Interior to line portions of the All-American and Coachella canals in Imperial and Riverside counties has been enacted by Congress. Southern California water agencies would fund the cost of the lining projects and the conserved water would be made available in accordance with the existing priorities to use of Colorado River water in California.

MWD and the Arvin-Edison Water Storage District have developed a water storage project which, following necessary approvals, would allow some of MWD's unneeded

supplies in wet years to be stored by Arvin-Edison in an underground aquifer in the southeastern corner of the San Joaquin Valley. In later dry periods, MWD will receive about 100,000 acre-feet annually of Arvin-Edison's surface supplies while the agricultural agency takes the stored groundwater to meet its needs.

In 1981, MWD launched a local projects program aimed at increasing the use of reclaimed water in Southern California. Under this program, MWD provides financial assistance to qualifying projects. As of December 1990, 23 projects totaling 61,185 AFY had been approved and 10 others, expected to reuse 35,125 AFY, were under consideration.

CHAPTER 7, ENVIRONMENTAL IMPACT ASSESSMENT METHOD AND SUMMARY OF IMPACTS AND MITIGATION MEASURES

- o Page 7-2: following paragraph 1, insert text below:

It must be noted that prior to the preparation of the Draft EIR, no description of the pre-project conditions of groundwater dependent vegetation on the valley floor existed. There was no vegetation map of these conditions, nor were there any surveys or inventories documenting these vegetation conditions. Therefore, it was necessary to develop a description of pre-project conditions. In developing this description, the best available information was used, but much of this information was not produced until after 1970.

The information sources used in establishing a description of pre-project vegetation conditions included: (1) reports and letters supplied by both LADWP and the Inyo County Water Department; (2) past environmental impact reports filed by the City of Los Angeles; (3) field surveys conducted by EIP Associates personnel; (4) conversations with noted experts and knowledgeable residents; (5) aerial photographs taken in 1968, 1973, 1981, and 1988; (6) herbarium and library research at both the California Academy of Sciences, San Francisco, and the University of California at Berkeley; (7) a vegetation cover map compiled in 1973 by Earth Sat, Inc., and associated report; (8) a comparison of Owens Valley vegetation on 1968 and 1981 air photos conducted by Ecosat Geobotanical Surveys, Inc.; and (9) sources of historical information.

With regard to the 1973 vegetation cover map compiled by Earth Sat, Inc., this map was used in assessing the impacts to vegetation of the project from 1970 to 1990 by comparing it with vegetation maps developed during the 1984-87 vegetation inventory; however, the quantity of data and the level of detail of the 1973 map limited its usefulness in accurately establishing pre-project conditions or evaluating vegetation change.

During preparation of the Draft EIR, consideration was given to using interpretation of aerial photos of the Owens Valley taken in 1941 and 1968 to prepare a map of pre-project vegetation conditions. Inyo County and LADWP had differing opinions on the feasibility of establishing pre-project vegetation conditions through such an

air photo interpretation. Consequently, two technical experts in the field of air photo interpretation, Dr. Robert Colwell and Dr. Paul Tueller, were contacted for an opinion regarding analysis of the available photos. Those experts suggested that there are several benefits to such an analysis, but cautioned that there are also certain limitations of the photos themselves that tend to reduce their interpretability. (Letters regarding the use of existing air photos received from Dr. Tueller, Dr. Colwell and Mr. Dennis Jaques of Ecosat Geobotanical Surveys, Inc., are presented in Appendix B-2 to the Response to Comments document.) Because of the differing conclusions of these experts, an interpretation of existing air photos to develop a map of pre-project vegetation conditions was not undertaken. As a consequence, it was not considered feasible to reliably estimate the number of acres of each vegetation type that existed in the Owens Valley prior to 1970 and such information is not presented.

However, Inyo County and LADWP recognize that aerial photos can be a valuable monitoring tool. To determine their utility in monitoring the vegetation of the Owens Valley, a cooperative study will be undertaken by the County and LADWP, together with experts in the field of aerial photo interpretation. This study will analyze existing aerial photos as part of an evaluation of the merits of using aerial photo analysis as an ongoing monitoring technique.

Despite problems with establishing a pre-project description for groundwater dependent vegetation, it was possible to establish a more accurate description for vegetation whose source of water supply was precipitation, the river or its tributaries, lakes and ponds, canals and ditches, springs and seeps, and irrigation, because relatively good records exist for the pre-project period concerning such water supply sources. The description of this vegetation is presented in Chapter 10, Vegetation, of the Draft EIR.

In response to public comments, a better description of some Owens Valley springs has been prepared. Aerial photos were used to prepare generalized pre-project and 1990 vegetation maps of the Owens Valley springs known to have been affected by the project between 1970 and 1990. These maps show the areal extent of spring influenced vegetation in 1968 and 1990. The maps are presented in Appendix A-1 to the Response to Comments document. Also in Appendix A-1 is a list of plants, including species of special concern, typically found at or around springs, and a list of animal species of special concern known to use spring habitats.

With regard to the pre-project conditions of rare plant and wildlife species, in the early 1980s, LADWP began a program of monitoring plant and animal species on its lands in the Owens Valley. Prior to that time, little data existed on the occurrence of rare and endangered species on Los Angeles-owned lands. As stated earlier in this response, no surveys or inventories of any kind were conducted prior to 1970. Thus, it is not possible to accurately describe the pre-project conditions and occurrence of these species.

- o Page 7-2: following first paragraph under the heading MITIGATION MEASURES, insert the text below:

Mitigation of Significant Effects - 1970 to 1990

The mitigation measures identified in the Draft EIR for the significant effects of the project to Owens Valley vegetation between 1970 and 1990 were selected from among a range of mitigation goals and from a range of management alternatives to achieve the chosen goal. Since Inyo County and LADWP often had differing ideas on the type or the degree of mitigation for an identified significant effect of the project, the selection of a mitigation measure in many instances was a compromise resulting from negotiation. Off-site mitigation of a compensatory nature was an alternative in all of the instances discussed below.

The options for mitigation of impacts to groundwater dependent vegetation due to groundwater pumping are:

1. Manage groundwater pumping to allow water tables to return and be maintained at pre-project levels. Once water tables are at this level, a) allow the affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort. The potential for success of such a revegetation effort is unknown because, once impacted, it may not be possible to restore a site to its previous plant cover.
2. Manage groundwater pumping in accordance with the goals of the Agreement, but supply surface water and/or pumped groundwater to the affected area. Once this has occurred, a) allow the area to naturally revegetate, or b) restore the vegetation to its natural composition and cover to the extent possible through an active revegetation effort.
3. Manage groundwater pumping in accordance with the goals of the Agreement and establish an irrigated crop (i.e., pasture, alfalfa, or other crop) supplied with surface water and/or pumped groundwater.
4. Manage groundwater pumping in accordance with the goals of the Agreement and revegetate with species native to the Owens Valley that are not dependent on high groundwater levels and would require no irrigation once established.

Mitigation alternative three was selected for impacts identified in the following areas: Independence Springfield, 30 acres east of Independence, 30 acres northeast of Big Pine, and the Shepherd Creek alfalfa field.

Mitigation alternative two was selected for a total of 60 acres located in three areas east of the Symmes/Shepherd well field. Alternative four was selected for a total of 80 acres in the Taboose Creek/Hines Spring area. Approximately 300 acres in the Five Bridges area are being mitigated through a combination of alternatives one and two; that is, pumping has been discontinued in the area, surface water has been supplied to stimulate natural revegetation and active revegetation has occurred in a portion of the area.

The options for mitigation of impacts to springs and seeps due to groundwater pumping are:

1. Manage groundwater pumping to allow the flow at the affected spring or seep to resume. Once an adequate flow has resumed, a) allow the affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort.
2. Manage groundwater pumping in accordance with the goals of the Agreement, replace the previous water resource with surface water and/or pumped groundwater and a) allow the affected area to naturally revegetate, or b) restore the vegetation to its original composition and cover to the extent feasible through an active revegetation effort.
3. Manage groundwater pumping in accordance with the goals of the Agreement and revegetate the area with species native to the Owens Valley that are not dependent on high groundwater levels or groundwater available at the ground surface and would require no irrigation once established.

Mitigation alternative two was selected for mitigation of impacts at Big and Little Seeley springs, Hines Spring and Little Blackrock Spring. Impacts to Fish Springs and Blackrock Spring will receive compensatory mitigation through the Lower Owens River Project.

The options for mitigation of impacts due to abandonment of agriculture are:

1. Reestablish a cultivated crop (i.e., pasture, alfalfa, or other crop) and irrigate with surface water or pumped groundwater.
2. Revegetate with species native to the Owens Valley that are not dependent on high groundwater levels and would require no irrigation once established.

Mitigation option one was selected for the Independence Pasture Lands, Van Norman Field, Richards Field, Lone Pine Woodlot, a seven-acre field along Whitney Portal Road and an 11-acre field east of Highway 395 in Lone Pine. Approximately 120 acres near Bishop will be mitigated through alternative two. In addition, the loss of meadow and riparian vegetation that was supplied by tailwater from formerly irrigated lands will receive compensatory mitigation through the Lower Owens River Project.

The options for mitigation of impacts caused by a combination of groundwater pumping, changes in surface water management, abandonment of agriculture, water spreading, and/or livestock grazing are:

1. Discontinue the water and/or land management activities that caused the impact and either allow natural revegetation to occur or actively rehabilitate the site by planting native vegetation but not necessarily to achieve the same cover or composition.

3. Revisions to the Agreement and Draft EIR

2. Continue the water and/or land management activities that caused the impact, supply surface water or pumped groundwater, and either allow natural revegetation to occur or actively rehabilitate the vegetation to its original cover.
3. Continue the water and/or land management activities that caused the impact, establish a cultivated crop (i.e., pasture, alfalfa, or other crop) and irrigate with surface water or pumped groundwater.
4. Continue the water and/or land management activities that caused the impact and revegetate with species native to the Owens Valley that are not dependent on groundwater and would require no irrigation once established.

Mitigation alternative three was selected for approximately 140 acres in the Laws area, as well as for the Laws-Poleta Pasture Land project. This alternative will also be employed on 20 acres east of Big Pine. Mitigation alternative four was selected for 160 acres near Big Pine, and the Inyo/Los Angeles Standing Committee will consider implementing this alternative on another 640 acres in the Laws area. The loss of marsh habitat in the Thibaut/Sawmill area will receive compensatory mitigation through the Lower Owens River Project.

Mitigation of Significant Effects - Agreement

A primary goal of the Agreement is to avoid causing significant decreases or changes in vegetation or other significant effects on the environment of the Owens Valley. Therefore, mitigation is not considered a primary management tool, but rather a secondary tool to be employed should impacts occur that are inconsistent with the goals of the Agreement.

If impacts occur, Section I.C.2 (pages 28 to 31) of the Green Book describes the procedures to be employed in developing, implementing and reporting on mitigation, including revegetation. Pursuant to these procedures, the Technical Group must establish a mitigation goal for each impact, consider all options for achieving the goal and adopt a mitigation plan. The Technical Group must report at least once a year to the Standing Committee on the effectiveness of mitigation in achieving its goal. If a mitigation plan fails to substantially achieve its goals, the Technical Group is required to implement alternative, feasible mitigation, if any exists, that will achieve the goals. If no such alternative exists, a new mitigation goal is to be developed and implemented for the area and a report is to be made to the Standing Committee explaining the reasons for the change.

The Technical Group must consider all feasible options of alternative mitigation if the recommended mitigation should fail to achieve its goals. If there are no identified acceptable or feasible mitigation options, and the described mitigation is unproven, then the Technical Group will make every reasonable effort to successfully implement the unproven mitigation.

Implementation of Mitigation

For each mitigation measure for a significant effect identified in the EIR which has not already been mitigated, the Technical Group will develop and implement a

mitigation plan pursuant to the procedures of the Green Book described above. A mitigation plan and schedule for each significant effect identified in the EIR will be developed not later than one year after final approval of this EIR. If the means of implementing a mitigation measure described in the EIR are unproven, the Technical Group will make every reasonable effort to successfully implement the mitigation measure.

It must be noted that if, despite efforts to mitigate an impact, past or future, there is no feasible mitigation option, there will be an unmitigated, unavoidable significant effect on the environment.

No enhancement/mitigation project which is an identified mitigation measure for impacts of the project will be modified or discontinued except in full compliance with CEQA, and unless the Standing Committee finds that either:

1. The enhancement/mitigation project as modified will continue to reduce the identified adverse effect of the project to a level which is less than significant; or
2. A new mitigation measure will be implemented which will reduce the identified adverse effect of the project to a level which is less than significant.

In its periodic evaluation of each enhancement/mitigation project identified as a mitigation measure by this EIR, the Technical Group will report on the effectiveness of the measure in reducing an adverse effect of the project to a less than significant level. An evaluation of such enhancement/mitigation projects will be made at least annually to the Standing Committee.

Monitoring and Reporting

When making findings, a monitoring and reporting program must be adopted and incorporated into the approved project for all mitigation measures that reduce or avoid significant effects on the environment. This reporting or monitoring program must be designed to ensure CEQA compliance during project implementation. The reporting or monitoring program (Public Resources Code 21081.6) was added to CEQA in 1988 by Assembly Bill 3180 (Cortese). Mitigation monitoring and reporting programs will be adopted for the project upon adoption of findings by the lead agency, Los Angeles, and by the responsible agency, Inyo County, and thus are not contained in the EIR.

Cumulative Effects - 1970 to 1990

CEQA Guidelines (Section 15130) require that the cumulative impacts of a proposed action "shall be discussed when they are significant." Cumulative impacts are defined by the Guidelines as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." In a cumulative impact analysis the potential for cumulative effects becoming greater than the sum of various individual, isolated impacts is evaluated. CEQA Guidelines call for evaluating the cumulative impacts of projects past, present, and anticipated, relevant to the proposed project.

Under CEQA, mitigation of a significant effect of Los Angeles' water gathering activities to supply its first aqueduct is required only if an effect of such activities, when combined with an effect of the project, causes a significant cumulative effect on the environment. Thus, under existing law, a significant effect resulting from Los Angeles' pre-project activities alone, is not required to be mitigated.

In evaluating the cumulative effects of the project in relation to Los Angeles' pre-project activities, a compilation was made of all known environmental effects in the Owens Valley. This compilation was based upon studies conducted by USGS and others, available data, and the best judgement of the authors. A determination was then made as to the cause of each effect. Three categories were established: 1) effects caused by pre-project activities, 2) effects caused by the project between 1970 and 1990, and 3) effects caused by pre-project activities that were potentially worsened by effects of the project from 1970 to 1990. Once the effects were so categorized, it was determined whether an effect in either category two or three was a significant effect on the environment. For all effects of the project (category two) that were determined to be significant, mitigation measures were identified and are described in the Draft EIR.

Concerning the effects that were caused by pre-project activities, but which were potentially worsened by the effects of the project from 1970 to 1990, a determination was made whether activities under the project from 1970 to 1990 actually worsened the pre-existing effect. In many cases, it was very difficult to make such a determination. For instance, in a poorly vegetated field where irrigation was discontinued in the 1930s, it was difficult to determine whether it was the abandonment of irrigation alone that resulted in the current poor vegetation conditions or whether groundwater pumping since 1970 aggravated the pre-existing problem. In the instances where it was determined that it was probable that activities under the project from 1970 to 1990 worsened a pre-project effect to a level deemed significant, mitigation measures were identified. Examples are 640 acres in the Laws area (Impact 10-18) and 20 acres near Big Pine (Impact 10-19).

Cumulative Effects - Agreement (Post-1990)

A primary goal of the Agreement is to manage future groundwater pumping and surface water to avoid causing significant decreases and changes in vegetation from that which existed in the 1984-87 period. Also, under the Agreement, lands currently irrigated will continue to be irrigated in the future. Should any significant effect to the Owens Valley environment occur in the future, it must be mitigated in accordance with procedures described in the Green Book. Therefore, it was determined that activities under the Agreement, when combined with the pre-project and the 1970 to 1990 effects of LADWP's activities, will not cause any significant effects to the environment.

- o Page 7-12: Mitigation Measure 10-14, paragraph 2 is revised to read:

LADWP will continue to supply water from Division Creek to the site of the former pond at Little Blackrock Springs. The marsh vegetation at this site will thus

be maintained. When it was determined in the late 1980s that groundwater pumping was affecting the flow from Reinhackle Spring, pumping from certain wells in the area was discontinued and the spring flow increased. No significant adverse impacts on vegetation in this area have resulted from the reduced flow. At Reinhackle Spring groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. In addition, all of the provisions for protecting springs, described in Impact 10-15 on page 10-63 and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

- o Page 7-13: Impact 10-15 is replaced with:

Under the provisions of the Agreement and the Green Book, spring flows and vegetation dependent upon such flows will be carefully monitored by the Technical Group. The Green Book contains procedures for determining the effects of groundwater pumping and surface water management practices on spring flow (pages 24-26). Groundwater pumping from existing and new wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring associated vegetation. If despite such management, significant decreases in spring flows occur that could cause significant decreases or changes in vegetation dependent upon such flows, management of groundwater pumping from wells affecting flow from the spring will be modified so that adequate spring flow resumes to supply the vegetation. Also, the Technical Group would determine an appropriate course of action which might include:

- a. temporarily supplying surface water or groundwater of a quality that would restore and sustain the vegetation until adequate spring flow resumes;
- b. revegetating the affected area if necessary.

Concerning seeps, Section I.D.1 of the Green Book (page 31) provides:

Certain vegetation of significant environmental value [is] not shown on the management maps because [it is] not the dominant species. This vegetation will be identified by the Technical Group for monitoring purposes on overlays to the management maps. Areas of this vegetation include riparian vegetation dependent upon springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. The monitoring sites will be located in areas where there is a potential for impact to such vegetation by groundwater pumping or changes in surface water management practices (although certain areas of rare or endangered species will be monitored, these areas will not be publicly identified on the management maps in the interest of protecting such vegetation).

If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices [have] resulted in severe water deficit stress that could cause a significant decrease or change in this vegetation, the Technical Group will take such action as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.

Section I.D.2 (page 32) and Section I.D.3 (page 33) of the Green Book describe how this vegetation will be monitored and how mitigation plans will be developed for this vegetation, if necessary.

- o Pages 7-16 to 7-17: first paragraph following Mitigation Measures 10-20 is replaced with:

Portions of the Lower Owens River Project, including Thibaut Ponds, are in this area. Thus, portions of the impacted area will be mitigated directly; however, for much of the impacted area, mitigation will be in the form of compensation through the Lower Owens River Project's restoration of wetland, meadow, and riparian vegetation.
- o Page 7-22: Mitigation Measure 16-11 is replaced with:

At Reinhackle Spring groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. In addition, all of the provisions for protecting springs, described in Impact 10-15 on page 10-63 and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

CHAPTER 8, GEOLOGY, SOILS AND SEISMICITY

- o Page 8-3: first incomplete paragraph, the clause "and delineates faults that have been identified with in the Valley" is deleted.
- o Page 8-13: paragraphs 3 and 4 are replaced with the text below:

Subsidence

Ground subsidence is a phenomenon where the ground surface elevation is lowered as much as tens of feet or as little as a few inches. Ground subsidence can occur progressively over time (usually years) as a result of pumping an aquifer that underlies relatively loose, unconsolidated soils. Ground subsidence has been observed in California in portions of the Central Valley and Santa Clara Valley. Man-made structures such as fences, roads, power poles, and sewer lines, water lines, drainage structures, and buildings are often affected by ground subsidence.

Fine-grained alluvial aquifers containing groundwater under artesian pressure are known to be susceptible to ground subsidence as a result of groundwater extraction. Pumping induced release of artesian pressures, drawdown, causes compression of the aquifer and the adjacent and included silt and clay deposits. The extent of subsidence is dependent on the amount of drawdown and the thickness, elasticity, porosity, and compressibility of the fine-grained soils. Generally, the amount of

subsidence caused by release of hydraulic pressure within thick beds of silt and clay is greater, than an equal drawdown within an aquifer having only thin lenses of silt and clay. In the Owens Valley, the upper alluvial fans contain mostly coarse-grained sediments that are not susceptible to subsidence; however, the thick fluvial and lacustrine deposits underlying portions of the valley floor contain substantial thicknesses of silt and clay that are susceptible.

The LADWP well fields are consistently located along the western edge of the valley where the coarse-grained deposits offer excellent well yields. Aquifer drawdown in these areas and from the fractures and cavities within the volcanic deposits do not result in subsidence. However, those wells located further toward the valley floor have caused pressure reductions within fine-grained deposits. In those areas, typified by artesian wells whose flows have been interrupted by groundwater pumping, the potential for subsidence exists.

During the preparation of the Draft EIR, several sources were consulted to determine whether ground subsidence has occurred in Owens Valley, and if so, whether such ground subsidence is attributable to groundwater pumping. Technical data from the U.S. Geological Survey (USGS) were examined along with field data provided by LADWP. No evidence was found in the literature or in conversations with LADWP field personnel; no visual evidence of subsidence has been observed.

Third order levels circuits were performed in the Independence/Manzanar well fields beginning in 1931. Portions or all of the monuments were resurveyed eight additional times since 1931 -- the last being in 1983.

After reviewing these findings and adjusting for different USC and USGS datums used, the conclusion is that the settlements observed are beyond the accuracy of the survey methods used but may be in the order of less than 0.1 foot (less than 1.20 inches). Since the areas susceptible to subsidence are located on the valley floor away from roads, utilities and structures that could be adversely affected, it is concluded that, even if some small amount of subsidence may have occurred, it is not considered to be a significant impact on the geology, soils, or seismicity of the Owens Valley. Further subsidence monitoring will be performed with global positioning equipment, and the first survey using this method will be completed by May 15, 1991.

CHAPTER 9, WATER RESOURCES

- o Page 9-7: Table 9-1, the units of measurement are in acre-feet per year.
- o Page 9-9: paragraph 3 (single sentence) is revised to read:
Storage in Tinemaha Reservoir from 1945 to 1989 is depicted in Figure 9-3.

- o Page 9-11: Figure 9-3 is revised as shown at the end of this chapter.
- o Page 9-12: paragraph 3 is revised to read:

Outflow from the system includes in-valley uses and losses (natural groundwater recharge, artificial groundwater recharge, and uses on LADWP land), conveyance loss in creeks, operational spreading, transit losses, evaporation from Tinemaha Reservoir, and export to Los Angeles (defined by inflow to Haiwee Reservoir).
- o Page 9-15: Table 9-2 title is revised to read:

PRE-PROJECT SURFACE WATER BUDGET
(1,000's acre-feet)
- o Page 9-15: Table 9-2, sixth line is revised to read:

Conveyance Loss in Creeks
- o Page 9-23: Table 9-3, second line of footnote #2, "minute" is revised to read "day".
- o Page 9-35: Table 9-4, the correct values are 29524, 7747, 1466, 2072, 3332, 10038, and 608 for years 1966, 1971, 1976, 1980, 1983, 1984 and 1988, respectively.
- o Page 9-60: Table 9-10, revisions and insertions as listed below:

Location of Well Number 12N D is Independence Oak, not Big Pine.
Location of Well Number 13N D is Big Pine, not Independence Oak.
Well Number 18N D in the Independence Oak well field should be inserted between Well Number 13N D and Well Number 25N D.
Production rate for Well Number 18N D should be indicated by two dashes.
Location of Well Number 159 is Thibaut-Sawmill, not Taboose-Aberdeen.
Location of Well Number 342 is Taboose-Aberdeen, not Big Pine.
- o Page 9-79: paragraph 2, first sentence is revised to read:

Figures 9-15 and 9-16 (shown previously) present annual data for individual springs and for the two recognized groups of flowing wells for the entire period of record.
- o Page 9-83: paragraph under the heading Groundwater Pumping – Springs and Seeps – Agreement, is revised to read:

Under the provisions of the Agreement and the Green Book, spring flows and vegetation dependent upon such flows will be carefully monitored by the Technical

Group. The Green Book contains procedures for determining the effects of groundwater pumping and surface water management practices on spring flow (pages 24-26). Groundwater pumping from existing and new wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring-associated vegetation. If, despite such management, significant decreases in spring flows occur that could cause significant decreases or changes in vegetation dependent upon such flows, management of groundwater pumping from wells affecting flow from the spring will be modified so that adequate spring flow resumes to supply the vegetation. Also, the Technical Group would determine an appropriate course of action which might include:

- a. temporarily supplying surface water or groundwater of a quality that would restore and sustain the vegetation until adequate spring flow resumes;
- b. revegetating the affected area if necessary.

Concerning seeps, Section I.D.1 of the Green Book (page 31) provides:

Certain vegetation of significant environmental value [is] not shown on the management maps because [it is] not the dominant species. This vegetation will be identified by the Technical Group for monitoring purposes on overlays to the management maps. Areas of this vegetation include riparian vegetation dependent upon springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. The monitoring sites will be located in areas where there is a potential for impact to such vegetation by groundwater pumping or changes in surface water management practices (although certain areas of rare or endangered species will be monitored, these areas will not be publicly identified on the management maps in the interest of protecting such vegetation).

If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices [have] resulted in severe water deficit stress that could cause a significant decrease or change in this vegetation, the Technical Group will take such action as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.

Section I.D.2 (page 32) and Section I.D.3 (page 33) of the Green Book describe how this vegetation will be monitored and how mitigation plans will be developed for this vegetation, if necessary.

- o Page 9-86: Table 9-12, the units are milligrams per liter (mg/l).
- o Page 9-88: footnote #2 is revised to read:
Lopes, T. J. 1988. Hydrology and Water Budget of Owens Lake, California. 41107, Water Resources Center, Desert Research Institute, University of Nevada, Reno.

CHAPTER 10, VEGETATION

- o Page 10-3: paragraph 3, second sentence is revised to read:

This high soil salinity occurs because evaporation causes groundwater-borne ions to concentrate in the upper reaches of the soil profile.
- o Page 10-3: paragraph 4, text in third sentence is revised to read:

"(mean January low, 21 degrees F)".
- o Page 10-3: paragraph 5, third sentence is revised to read:

Dotted and dashed lines represent mean (5.1 inches) and median (4.3 inches), respectively.
- o Page 10-5: paragraph 3, second and third sentences are revised to read:

The main indicator of the Mojavean region is creosote bush. Additional species include Mormon tea, spiny sage, cheesebush, and species of horsebush. Typical species of the Great Basin flora include big sage, hopsage, and winterfat. Scientific names for plants are provided immediately following their common name reference within the section describing plant communities, beginning on page 10-6 under the heading Vegetation Inventory.
- o Page 10-7: paragraph 2, last sentence is revised to read:

Figures 10-3A and 10-3B show typical scrub communities of the alluvial fans and valley bottom.
- o Page 10-7: last sentence under the heading Mojave Creosote Bush Scrub is revised to read:

It is the dominant plant community between 3,000 and 4,000 feet elevation in southern Owens Valley.
- o Page 10-7: in the first sentence under the heading Mojave Mixed Woody Scrub, the species "bladderpod (*Isomeris arborea* ssp. *arborea*)" is removed.
- o Page 10-11: in the second sentence under the heading Blackbush Scrub, the word "calcareous" is removed from the soil description for Blackbush Scrub.

- o Page 10-11: the paragraph under the heading Rabbitbrush Scrub is revised to read:

It occurs on a wide variety of soil types with various depths to water.
- o Page 10-11: in the first sentence under the heading Desert Saltbush Scrub is revised to read:

This low, widely-spaced, small-leaved plant community is usually dominated by one or more species of saltbush (*Atriplex* spp. including allscale, fourwing saltbush, shadscale, Parry saltbush, etc.).
- o Page 10-12: in the first sentence under the heading Nevada Saltbush Scrub, the phrase ". . . with total cover around 30 to 35 percent . . ." is deleted.
- o Page 10-15: the first bulleted paragraph is revised to read:

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. The dominant vegetation consists of herbaceous plants, although shrubs may be found at the margins. Common species include yerba mansa (*Anemopsis californica*), saltgrass, sedges, rushes, cattails (*Typha* spp.), and bulrushes (*Scirpus* spp.).
- o Page 10-15: paragraph 4, fourth sentence is revised to read:

Figures 10-6A and 10-6B show representative riparian and bottomland habitat.
- o Page 10-19: in the first sentence under the heading Great Basin Riparian Scrub, "mountain willow, *Salix commutata*" is removed and replaced by "arroyo willow". The species *Salix lasiolepis* is added to Appendix B-4 of plant names.
- o Page 10-20, last paragraph is replaced with the text below:

In general, wetland habitats are habitats of concern in California. The various State and federal agencies have defined wetlands somewhat differently, but there are three elements common to all definitions. The Federal Manual for Identifying and Delineating Jurisdictional Wetlands states: Wetlands possess three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology, which is the driving force creating all wetlands.' These characteristics and their technical criteria for identification purposes are described in the following sections. The three technical criteria specified are mandatory and must all be met for an area to be identified as wetland. Therefore, areas that meet these criteria are wetlands.¹

The U.S. Army Corps of Engineers (COE) regulates the placement of fill in wetlands or waters of the United States under Section 404 of the Clean Water Act. The building of roads, bridges, canals, or other structures that would place dredge materials or fill in water of the U.S. would require a Section 404 permit from the COE.

In addition, the alteration or modification of creeks or streams would require authorization from the California Department of Fish and Game under Section 1601 of the California Fish and Game Code.

- o Page 10-21: Listing of plant species is replaced by Appendix B-3 of this Final EIR.
- o Page 10-24: Figure 10-7 is revised as shown at the end of this chapter.
- o Page 10-33: paragraph 4, second sentence is revised to read:
These lands are shown on Figures 10-8A to 10-8L.
- o Page 10-36: Figure 10-8C, the notation beside the box of horizontal crosshatching is revised to read "Revegetation Surface Water Impacts."
- o Page 10-38: Figure 10-8E, the notation beside the box of horizontal crosshatching is revised to read "Revegetation Surface Water Impacts."
- o Page 10-47: Following paragraph 2, insert text below:

Mr. Dennis Jaques' report identified general locations around the valley floor in which changes have occurred or may have occurred, as defined by a discernible change in vegetation type or density. The EIR team considered the main findings of the Jaques analyses; however, as Mr. Jaques acknowledged, the study did not specifically address effects of the second Los Angeles Aqueduct, but only addressed the observation that some vegetation changes had occurred.

Two additional technical experts in the field of air photo interpretation, Dr. Paul Tueller and Dr. Robert Colwell, were contacted for an opinion regarding analysis of the photos available at the present time. Those experts suggested that there are several benefits to such an analysis, but cautioned that there are also certain limitations that tend to reduce their interpretability, such as: (1) inadequate resolution; (2) the inadequate scale of the photos for accurate interpretation; (3) one set of photos is black and white, taken in July 1968, while the other is color, taken in September 1981; and (4) as Mr. Jaques noted, there were differing amounts of precipitation in the months preceding each set of photos. The letters received

from Mr. Jaques, Dr. Tueller, and Dr. Colwell are presented in Appendix B-2 to the Response to Comments document.

In summary, in addition to Mr. Jaques' report, the other information sources used in the pre-project setting and the impact analyses include: (1) reports and letters supplied by both LADWP and the Inyo County Water Department; (2) past environmental impact reports filed by the City of Los Angeles; (3) field surveys conducted by EIP Associates personnel; (4) conversations with noted experts and knowledgeable residents; (5) aerial photographs taken in 1968, 1973, 1981, and 1988; (6) herbarium and library research at both the California Academy of Sciences, San Francisco, and the University of California at Berkeley; (7) a vegetation cover map compiled in 1973 by Earth Sat, Inc., and associated report; and (8) sources of historical information. Because of the information obtained from Dr. Tueller, Dr. Colwell, and Mr. Jaques, and for the reasons presented on page 10-27 and 10-28 of the Draft EIR, an analysis of aerial photographs was not the primary method of establishing pre-project vegetation conditions.

However, aerial photos can be a valuable monitoring tool. To determine their utility in monitoring the vegetation of the Owens Valley, a cooperative study will be undertaken by LADWP and Inyo County, together with experts in the field of aerial photo interpretation. This study will analyze existing aerial photos as part of an evaluation of the merits of using aerial photo analysis as an ongoing monitoring technique.

- o Page 10-55: last paragraph, first sentence is revised to read:

The maps described above show that not all areas of the Valley floor have been affected, or have been identified as having a relatively high potential to be affected, by groundwater pumping.
- o Page 10-57: first paragraph, the last sentence is deleted.
- o Page 10-57: paragraph 2, second sentence is revised to read:

These are only the areas that have the potential for adverse impact due to groundwater pumping.
- o Page 10-59: first paragraph following Impact 10-13, text in last sentence is revised to read:

". . . Figure 10-8I."
- o Page 10-59: second paragraph following Mitigation Measures 10-13, text in last sentence is revised to read:

". . . pages 10-71 through 10-74."

- o Page 10-61: paragraph 1, text in last sentence is revised to read:

" . . . Figure 10-8H."

- o Page 10-62: paragraph 4, last sentence is replaced with the following:

At Reinhackle Spring groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. In addition, all of the provisions for protecting springs, described in Impact 10-15 on page 10-63 and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring.

- o Page 10-63: Impact 10-15 is replaced with:

Under the provisions of the Agreement and the Green Book, spring flows and vegetation dependent upon such flows will be carefully monitored by the Technical Group. The Green Book contains procedures for determining the effects of groundwater pumping and surface water management practices on spring flow (pages 24-26). Groundwater pumping from existing and new wells will be managed to avoid reductions in spring flows that would cause significant decreases or changes in spring-associated vegetation. If, despite such management, significant decreases in spring flows occur that could cause significant decreases or changes in vegetation dependent upon such flows, management of groundwater pumping from wells affecting flow from the spring will be modified so that adequate spring flow resumes to supply the vegetation. Also, the Technical Group would determine an appropriate course of action which might include:

- a. temporarily supplying surface water or groundwater of a quality that would restore and sustain the vegetation until adequate spring flow resumes;
- b. revegetating the affected area if necessary.

Concerning seeps, Section I.D.1 of the Green Book (page 31) provides:

Certain vegetation of significant environmental value [is] not shown on the management maps because [it is] not the dominant species. This vegetation will be identified by the Technical Group for monitoring purposes on overlays to the management maps. Areas of this vegetation include riparian vegetation dependent upon springs and flowing wells, stands of tree willows and cottonwoods, and areas with rare or endangered species. The monitoring sites will be located in areas where there is a potential for impact to such vegetation by groundwater pumping or changes in surface water management practices (although certain areas of rare or endangered species will be monitored, these areas will not be publicly identified on the management maps in the interest of protecting such vegetation).

If, through field observation, monitoring, and other evaluations, it is determined that groundwater pumping or changes in surface water management practices [have] resulted in severe water deficit stress that could cause a significant decrease or change in this vegetation, the Technical Group will take such action as is feasible and necessary to prevent significant impacts and to reduce any impacts to a level that is not significant.

Section I.D.2 (page 32) and Section I.D.3 (page 33) of the Green Book describe how this vegetation will be monitored and how mitigation plans will be developed for this vegetation, if necessary.

- o Page 10-63: first paragraph under the heading IRRIGATION 1970-90, last sentence is revised to read:

The lands irrigated prior to and after 1970, are shown on Figures 10-8A through 10-8L.
- o Page 10-68: first paragraph following Mitigation Measures 10-19, last sentence is revised to read:

These areas are shown on Figure 10-8E.
- o Page 10-68: last paragraph following Mitigation Measures 10-19, last sentence revised to read:

This area is shown on Figure 10-8E.
- o Page 10-69: first paragraph following Mitigation Measures 10-20, is replaced with:

Portions of the Lower Owens River Project, including Thibaut Ponds, are in this area. Thus, portions of the impacted area will be mitigated directly; however, for much of the impacted area, mitigation will be in the form of compensation through the Lower Owens River Project's restoration of wetland, meadow, and riparian vegetation.
- o Page 10-70: Following paragraph 4, insert paragraph below:

This policy is to provide guidance to the Standing Committee for establishing annual pumping programs during the current drought as well as during a period of recovery. It is intended that groundwater pumping will continue to be conducted in an environmentally conservative manner as was done during the 1990-91 and 1991-92 runoff years until there has been a substantial recovery in soil moisture and water table conditions in areas of Types B, C, and D vegetation that have been affected by groundwater pumping. The Standing Committee will establish annual pumping

programs based on an evaluation of current conditions, including soil moisture level, water table depth, degree of water table recovery, soil type, vegetation conditions, the results of studies pertaining to vegetation recovery, and compliance with the goals of the Agreement. It is probable that this policy will result in reduced annual pumping programs as compared to annual pumping programs based solely on soil moisture conditions.

- o Page 10-72: Following paragraph 1, insert paragraph below:

In the original draft of the Agreement, "significant" was included among the terms as defined under CEQA; however, in response to public comments requesting a more detailed definition of significance, the August 1989 draft was revised by the addition of Section IV.B (pages B-22 through B-24), regarding the determination of significance and significant effect on the environment. The guidelines for making this determination are found in the Green Book, Section I.C (pages 19 through 27). However, should it be believed that a significant effect on the environment (as defined under CEQA) has or will occur due to the project, any person may bring the matter to the attention of Los Angeles or Inyo County and/or employ any other available legal right or remedy, including CEQA.

- o Page 10-74: footnote #10 is revised to read:

Los Angeles Department of Water and Power. 1990. Section II Green Book "Vegetation Inventory and Development of Vegetation Management Maps."

CHAPTER 11, WILDLIFE

- o Page 11-4: paragraph 2, third sentence is revised to read:

These surveys covered 75,000 acres and took place from October 1973 to June 1974, and again from late August 1975 to November 1975.

- o Page 11-5: paragraph 3, first sentence is revised to read:

"Around the turn of the century, previously unrecorded species such as gadwall, and canvasback ducks began to appear in the Valley, . . ."

- o Page 11-6: Table 11-1, smallmouth bass, bullhead, and cutthroat trout are added; however, no definitive dates of introduction are available for these species.

- o Page 11-7: last paragraph, first sentence is revised to read:

These birds tend to prefer open water aquatic habitats and include loons, grebes, white pelican, double-crested cormorant, gulls, terns and 31 species of waterfowl (ducks, geese and swans).
- o Page 11-8: paragraph 1, last sentence is deleted.
- o Page 11-8: paragraph 2, last sentence is deleted.
- o Page 11-8: paragraph 4, first sentence is revised to read:

Eight species of gulls and five species of terns are known to occur in the Valley.
- o Page 11-8: paragraph 4, second sentence is deleted.
- o Page 11-8: paragraph 5, first sentence is revised to read:

"Thirty-one species of waterfowl . . ."
- o Page 11-8: paragraph 5, fourth sentence is revised to read:

The Tundra swan is fairly common in the winter, while the Canada, white-fronted, snow, and Ross' geese are common, rare, uncommon, and accidental migrants, respectively.
- o Page 11-9: paragraph 4, second sentence is revised to read:

"Of the 50 species . . ."
- o Page 11-10: paragraph 1, second sentence is revised to read:

Migrant species include the common egret, the fairly common snowy egret, and the uncommon green heron and black-crowned night heron, or the rarely seen least bittern and cattle egret.
- o Page 11-10: paragraph 2, third sentence is revised to read:

The common gallinule is rare in the summer months, while the sandhill crane is a rare winter visitor.

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- Page 11-10: paragraph 3, first sentence is revised to read:
"Of the 27 species . . ."
- Page 11-10: paragraph 3, fourth sentence is revised to read:
The vast majority of the shorebirds are migrant species and are either uncommon or rare, but the populations of individual species may appear to be more abundant due to the numbers of various species seen together at any one time or place.
- Page 11-10: paragraph 3, last two sentences are deleted.
- Page 11-11: paragraph 1, second sentence is revised to read:
"Twenty species of hawk and hawk allies . . ."
- Page 11-11: paragraph 3, first sentence is revised to read:
Of the hawks, the red-tailed hawk and northern harrier are the most common year-long residents.
- Page 11-11: paragraph 3, third and fourth sentences are revised to read:
The rough-legged hawk and sharp-shinned hawk may be common during the winter months, the ferruginous hawk may be an uncommon winter resident, the Swainson's hawk is a common summer resident, while the red-shouldered hawk is a rare migrant. The food preferences of these hawks are about evenly divided between small mammals, preferred by the red-tailed, red-shouldered, Swainson's, rough-legged, and ferruginous hawks, and small birds, preferred by the goshawk, sharp-shinned, Cooper's and marsh hawks.
- Page 11-11: paragraph 5, first sentence is revised to read:
The osprey, or fish hawk, is a summer resident which feeds entirely on fish.
- Page 11-12: paragraph 2, fourth sentence is revised to read:
The Merlin is an uncommon winter resident and the American peregrine falcon is a rare winter visitor.
- Page 11-12: paragraph 3, third sentence is revised to read:
Both of these species feed mostly on rodents. The screech owl is found in riparian areas in the towns and in pinyon/juniper forests where it also consumes large amounts of insects.

- o Page 11-12: paragraph 3, fifth sentence is revised to read:

Other fairly common owls are the barn owl and long-eared owl, both year-long residents. The burrowing owl, whose numbers have declined in recent years, is found in open brushlands during the summer months.
- o Page 11-12: paragraph 3, last sentence is revised to read:

The pygmy and saw-whet owls are rarely seen migrants which are summer breeders in wooded areas at higher elevations.
- o Page 11-13: top of page, add the following sentence to the end of the partial paragraph:

Local birders report a decline in quail populations during the current drought, with brood sizes well below average.
- o Page 11-13: first complete paragraph, third sentence is revised to read:

Its larger cousin, the white-winged dove, is accidental in this area.
- o Page 11-14: paragraph 3 is revised to read:

The roadrunner is a member of the cuckoo family and is a common resident species that may be seen throughout the Valley. Roadrunners feed primarily upon lizards and insects associated with the alkali scrubland and semi-desert scrubland vegetation.
- o Page 11-14: paragraph 6 is revised to read:

Hummingbirds, the smallest of the North American birds, feed on the nectar of both wild and cultivated plants and on insects. None of the six species of hummingbirds found in this area are year-long residents, and only the black-chinned and rufous hummingbirds are very common on the Valley floor. The Costa's hummingbird may occur locally but is rarely seen. The broad-tailed and calliope hummingbirds are usually found only at higher elevations but may pass through the Valley during migration. Anna's hummingbird is found at lower elevations.
- o Page 11-15: paragraph 1 is revised to read:

The woodpecker family is represented in and around the Owens Valley by seven species of woodpeckers, three species of sapsuckers, and the red-shafted or common flicker. The flicker is a common, year-long resident of wooded areas and towns and obtains most of its food on the ground -- mainly ants and other terrestrial insects. The yellow-bellied sapsucker is a common summer resident that feeds mainly on the wood, sap, and fleshy fruits of trees, while the Williamson's sapsucker is an

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uncommon migrant found mostly at higher elevations and feeds mainly on insects. The acorn, Lewis', whiteheaded, hairy, downy, ladder-backed, and Nuttall's woodpeckers are resident species. The Lewis' and white-headed woodpeckers, however, are found mostly at higher elevations. The downy woodpecker occurs at lower elevations than the hairy woodpecker, although there is a slight overlap of ranges. Insects and the fruits of woody plants are preferred food of all species.

- o Page 11-15: paragraph 2 is revised to read:

Seven species of flycatchers, none of which are resident species, may be found in wooded areas. As the name implies, flycatchers feed entirely on insects and spiders. The Black and Say's phoebes, the ash-throated flycatcher and the western kingbird, are common on the Valley floor and feed mainly on insects but also consume fruits of woody plants. The eastern kingbird is an oddity, as it has been observed in the Owens Valley in summer months. It is considered a fall transient. Local birders have reported that a pair of eastern kingbirds may have nested at Tinemaha Reservoir.

- o Page 11-15: paragraph 4 is revised to read:

Probably the most commonly seen birds in this area are the blackbilled magpie and the common raven. These birds may be seen throughout the year, in most vegetation types, as well as in the towns where they are considered nuisances. The American Crow is a summer resident in valley towns. While insects are considered the favorite food item for these species, they are usually seen eating carrion (road-killed birds and mammals).

- o Page 11-16: first full paragraph, fourth and fifth sentences are revised to read:

While the yellow-rumped warbler is a common resident species, the others are either migrants or summer visitors. There are three warblers (the black and white, magnolia and black-throated green) along with the ovenbird, northern waterthrush, and American redstart, which are rare or accidental migrants here in the Valley.

- o Page 11-16: paragraph 2, second sentence is revised to read:

Meadowlarks are found throughout the year but the greatest numbers are found in October when all young are out of the nest.

- o Page 11-16: paragraph 2, from the ninth sentence to the end of the paragraph is revised to read:

Others such as the fox and white-throated sparrows frequent bushy areas, while still others prefer marshy habitat. The white-throated sparrow is a fall transient. The vesper, sage, Lincoln's, and song sparrows are permanent residents. The chipping sparrow leaves the Valley in the winter, and the white-crowned sparrow leaves the

Valley in the summer. Six species are summer residents, three are winter residents, and only the golden-crowned sparrow is considered a true migrant. Numerous other bird species have not been discussed but are known to occur in the Valley, and are listed in Appendix C-1.

- o Page 11-29: Table 11-4 is revised with the following:

TABLE 11-4
SPECIES OBSERVED OR ADDED SINCE 1970

<u>Species</u>	<u>Occurrence</u>
Pacific loon (<i>Gavia pacifica</i>)	Accidental
Little blue heron (<i>Egretta caerulea</i>)	Rare
Oldsquaw (<i>Clangula hyemalis</i>)	Migrant
Hooded merganser (<i>Lophodytes cucullatus</i>)	Rare
Zone-tailed hawk (<i>Buteo albonotatus</i>)	Uncommon
Sanderling (<i>Calidris alba</i>)	Uncommon
Semipalmated Sandpiper (<i>Calidris pusillus</i>)	
Parasitic jaeger (<i>Stercorarius parasiticus</i>)	Uncommon
Herring gull (<i>Larus argentatus</i>)	Uncommon
Sabine's gull (<i>Xema sabini</i>)	
Common tern (<i>Sterna hirundo</i>)	
Chimney swift (<i>Chaetura pelagica</i>)	
Vermilion flycatcher (<i>Pyrocephalus rubinus</i>)	
Verdin (<i>Auriparus flaviceps</i>)	
Catbird (<i>Dumetella carolinensis</i>)	
Townsend's solitaire (<i>Myadestes townsendi</i>)	
Palm warbler (<i>Dendroica palmarum</i>)	Accidental
Great-tailed grackle (<i>Quiscalus mexicanus</i>)	
Summer tanager (<i>Piranga rubra</i>)	Uncommon
Brown towhee (<i>Pipilo fuscus</i>)	
Harris' sparrow (<i>Zonotrichia querula</i>)	
Swamp sparrow (<i>Melospiza georgiana</i>)	
Spiny pocket mouse (<i>Perognathus spinatus</i>)	
Speckled rattlesnake (<i>Crotalus mitchelli</i>)	
Mojave rattlesnake (<i>Crotalus scutulatus</i>)	Rare

Source: LADWP, Range and Wildlife Division, August 1990.

- o Page 11-30: Table 11-5 is supplemented with the following list of endangered, threatened, or species of special concern:

<u>SPECIES</u>	<u>STATUS</u>
Owens Sucker (<i>Catostomus fumeiventris</i>)	CSC
Common Loon (<i>Gavia immer</i>)	CSC*
American White Pelican (<i>Pelecanus erythrorhynchos</i>)	CSC*
Double-crested Cormorant (<i>Phalacrocorax auritus</i>)	CSC*
Least Bittern (<i>Ixobrychus exilis</i>)	CSC*
White-faced Ibis (<i>Plegadis chihi</i>)	CSC, 2*
Cooper's Hawk (<i>Accipiter cooperi</i>)	CSC*
Northern Goshawk (<i>Accipiter gentilis</i>)	CSC, FSS*
Sharp-shinned Hawk (<i>Accipiter striatus</i>)	CSC*
Ferruginous Hawk (<i>Buteo regalis</i>)	2*
Northern Harrier (<i>Circus cyaneus</i>)	CSC*
Osprey (<i>Pandion haliaetus</i>)	CSC
Sandhill Crane (<i>Grus canadensis</i>)	ST*
Mountain Plover (<i>Charadrius montanus</i>)	2*
Long-billed Curlew (<i>Numenius americanus</i>)	2*
California Gull (<i>Larus californicus</i>)	CSC*
Short-eared Owl (<i>Asio flammeus</i>)	CSC*
Burrowing Owl (<i>Athene cunicularia</i>)	CSC*
Black Swift (<i>Cypseloides niger</i>)	CSC*
Vermilion Flycatcher (<i>Pyrocephalus rubinus</i>)	CSC*
Purple Martin (<i>Progne subis</i>)	CSC*
Bank Swallow (<i>Riparia riparia</i>)	ST*
Le Conte's Thrasher (<i>Toxostoma lecontei</i>)	CSC
Inyo California Towhee (<i>Pipilo crissalis eremophilus</i>)	SE, FT
Virginia's Warbler (<i>Vermivora virginiae</i>)	CSC*
Townsend's Western Big-eared Bat (<i>Plecotus townsendii</i>)	CSC, 2
Panamint Kangaroo Rat (<i>Dipodomys panamintinus panamintinus</i>)	FSS
American Badger (<i>Taxidea taxus</i>)	CSC

ADDITIONAL SPECIES THAT FALL INTO ONE OR MORE OF THE FOLLOWING CATEGORIES:

- 1) taxa considered rare or endangered under Section 15380 (d) of CEQA guidelines;
- 2) taxa thought to be biologically rare, very restricted in distribution, or declining throughout their range;
- 3) populations in California that may be peripheral to the major portion of the taxon's range, but which are threatened with extirpation within California;
- 4) taxa loosely associated with a habitat that is declining in California at an alarming rate (which may or may not include Owens Valley).

BIRDS

Western Grebe (*Aechmophorus occidentalis*)
Great Blue Heron (*Ardea herodias*)*
Great Egret (*Casmerodius albus*)*
Snowy Egret (*Egretta thula*)*
Black-crowned Night Heron (*Nycticorax nycticorax*)*
Bufflehead (*Bucephala albeola*)*
Black-shouldered Kite (*Elanus caeruleus*)*
Caspian Tern (*Sterna caspia*)*
Forster's Tern (*Sterna forsteri*)*

MAMMALS

Pallid Bat (*Antrozous pallidus*)

ADDITIONAL SPECIES LISTED ON NATIONAL AUDUBON SOCIETY BLUE LIST, an "Early Warning System" for birds that have been reported in decline in some portion(s) of their range (not necessarily in California or specifically, Owens Valley):

American Bittern (*Botaurus lentiginosus*)
Canvasback (*Aythya valisineria*)
Red-shouldered Hawk (*Buteo lineatus*)
Black Tern (*Chlidonias niger*)
Barn Owl (*Tyto alba*)
Common Nighthawk (*Chordeiles minor*)
Bewick's Wren (*Thryomanes bewickii*)

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.

Source: California Department of Fish and Game, Natural Diversity Data Base, 1990.

3. Revisions to the Agreement and Draft EIR

- o Page 11-33: In the list following the first paragraph, the recommended numbers for tule elk herds are revised to 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

- o Page 11-40: paragraph 4, the parenthetical sentence is revised to read:
(These projects are described in Chapter 5, Table 5-2.)

CHAPTER 12, AIR QUALITY

- o Page 12-6: paragraph 1, second full sentence ("A list of TSP values . . .") is deleted.
- o Page 12-6: paragraph 2, seventh sentence is revised to read:
This area is shown in Figure 12-2.

CHAPTER 13, ENERGY

- o Page 13-3: paragraph 4, third sentence is revised to read:
Approximately 2,000 KWH was consumed for each acre-foot delivered to Southern California.
- o Page 13-5: paragraph 2, first sentence is revised to read:
In the future, the export of LADWP water will be governed by the terms of the Agreement.
- o Page 13-6: second paragraph following Impact 13-1, third sentence is revised to read:
The estimated net energy balance for the second aqueduct was about 880 KWH/AF (1,100 minus 220 = 880 KWH per acre-foot pumped).

CHAPTER 14, LAND USE AND ECONOMIC DEVELOPMENT

- o Page 14-12: Figure 14-2, the source for this figure is corrected to read "California Employment Development Department".
- o Page 14-13: Figure 14-3, the north arrow and scale are deleted, and the source is corrected to read "State Board of Equalization". In addition, the legend is clarified to read:

Solid square	- Apparel & General
Plus sign	- Food & Liquor
Asterisk	- Drugs
Open square	- Eat & Drink
X sign	- Home & Building
Diamond	- Auto-related
Triangle	- Other Retail

- o Page 14-22: Figure 14-6, the north arrow and scale are deleted, and the source is corrected to read "State Board of Equalization". In addition the legend is clarified to read:

Solid square	- Apparel & General
Plus sign	- Food & Liquor
Asterisk	- Drugs
Open square	- Eat & Drink
X sign	- Home & Building
Diamond	- Auto-related
Triangle	- Other Retail

CHAPTER 15, CULTURAL AND HISTORICAL RESOURCES

- o Page 15-3: paragraph 1, first sentence, "recovered" is replaced with "discovered."
- o Page 15-6: paragraph 3, second sentence, "south" is replaced with "north."

3. Revisions to the Agreement and Draft EIR

- o Page 15-7: paragraph 1, second and third sentences are revised to read:

Each of the proposed well locations was surveyed for cultural resources. In addition, the general locations of the proposed recharge facilities were visited and examined by a qualified archaeologist.

CHAPTER 16, ANCILLARY FACILITIES

- o Page 16-9: First paragraph following Impact 16-1, second sentence, the word "form" is replaced with "from".
- o Page 16-11: paragraph 2, first sentence is revised to read:

". . . if the wind were blowing . . ."
- o Page 16-12: paragraph 2 is revised to read:

The record search of the Big Pine area indicated that sites CA-INY-1716, CA-INY-124 and CA-INY-1719, are located immediately adjacent to, but not within, the area.
- o Page 16-26: Figure 16-9B is corrected to reflect 3.5 miles to Independence, and 7.7 miles to Lone Pine.
- o Page 16-35: paragraph 2, Mitigation Measure 16-11, is replaced with:

At Reinhackle Spring groundwater pumping from wells that affect the spring flow will be managed so that flows from the spring will not be significantly reduced compared to flows under prevailing natural conditions. In addition, all of the provisions for protecting springs, described in Impact 10-15 on page 10-63 and contained in the Agreement and the Green Book, will be applied equally to Reinhackle Spring."
- o Page 16-36: Second paragraph following Impact 16-13, first sentence is revised to read:

". . . if the wind were blowing . . ."
- o Page 16-41: the following sentence is added to the end of paragraph 2:

A map of the Bishop Cone is shown on Figure 16-12.

- o Page 16-42: paragraph 3 (single sentence) is revised to read:

Figure 16-12 shows the boundaries of the Bishop Cone.
- o Page 16-43: Following first paragraph under the heading Pumping and Water Use on the Bishop Cone After 1990, insert paragraph below:

Some people believe that under the "Chandler Decree" of 1922, Los Angeles is prohibited from exporting any water from Bishop Creek out of the Bishop area, and is required to divert and use such water on its lands on the Bishop Cone. Opinions on how a court would rule on this interpretation of the Chandler and Hillside Decrees have been prepared by Professor Joseph Sax of the University of California, an eminent authority on water law and the public trust doctrine, and by Inyo County's Special Legal Counsel, Antonio Rossmann. They have concluded that the Chandler Decree does not prohibit Los Angeles from exporting the waters of Bishop Creek from the Bishop Area, nor does it require Los Angeles to divert and use such waters on its lands on the Bishop Cone. They also conclude that the Agreement does not violate the Hillside Decree. These opinions are presented in Appendix A-4 to the Response to Comments document.
- o Page 16-44: Following first paragraph, insert paragraph below:

New wells on the Bishop Cone would be sited, and all wells would be operated to avoid aggravating the existing hydrocarbon pollution problem. The primary means of avoiding the problem would be through management of groundwater pumping based on actual and projected fluctuations in water tables.

CHAPTER 17, CEQA CONSIDERATIONS

- o Page 17-5: Following paragraph 4, insert text below:

Air Quality

Although the project does not affect the condition of Owens Dry Lake, the lake is considered in evaluating whether the cumulative effect of dust caused by the project, in combination with the dust from Owens Lake, causes a potentially significant adverse impact.

Impacts to air quality caused by the project result from significant reductions in vegetation cover and/or soil moisture. The single documented source of blowing dust (Independence Springfield) caused by the project has been mitigated (see pages 12-7 and 12-8 of the Draft EIR). The Draft EIR identifies other potential sources of dust from poorly vegetated areas and identifies mitigation measures to revegetate these areas. In addition, the goal of the Agreement is to avoid causing vegetation decline. Therefore, it is unlikely that the project has caused or will cause dust in quantities sufficient to be deemed significant. It also does not appear that the amount of any dust that has been or will be caused by the project adds in any

significant way to the already significant dust problem from Owens Lake. A discussion of the cumulative effects of the project to air quality follows.

Except for short-term monitoring conducted by the California Air Resources Board in 1972, the air quality in the Owens Valley was not monitored until 1979, when Great Basin Unified Air Pollution Control District (GBUAPCD) established monitoring sites throughout the valley. Quantitative data for pre-project air quality conditions are, therefore, not available.

However, based on anecdotal and other information, the following areas have been identified as sources of blowing dust before the project was implemented: the area east of Owens River, from Big Pine to Lone Pine; the dry shoreline of Tinemaha Reservoir when exposed due to low water levels; the spillway area on the east side of Tinemaha Dam; some poorly vegetated lands that were formerly cultivated and irrigated; and Owens Dry Lake, which is the largest single source of dust in the Owens Valley. These sources of dust represent the background air quality for evaluation of the cumulative impacts of the project on the air quality of the valley.

Owens Lake began to shrink in the 1890s as a result of the diversion of the Owens River and its tributary streams for irrigation in the valley. By 1904 the lake was reduced from its original area of 110 square miles to approximately 68 square miles. In 1913 Los Angeles diverted the entire flow of the river and its tributaries below the Intake Dam into the Los Angeles Aqueduct, and by 1924 Owens Lake was essentially dry. On windy days, large plumes of dust may be observed rising from the surface of the dry lake bed.

Monitoring by GBUAPCD confirmed Owens Lake as the predominant cause of federal air quality standard exceedences in the valley. Approximately 90 percent of the federal exceedences are caused by the dry lake bed. The other background sources of blowing dust identified above contribute to violations of air quality standards but do not individually cause violations. Mitigation of the Owens Lake dust problem is currently the subject of a separate multi-agency study headed by GBUAPCD, with financial support from the State Lands Commission and LADWP.

Impacts to air quality in the Owens Valley are described in Chapter 12, Air Quality, for the period 1970 to 1990 and for the future, under the Agreement. These impacts and prescribed mitigation measures are described individually in Chapter 10, Vegetation.

In Chapter 10, Vegetation, 1,015 acres are identified as having been significantly affected by increased groundwater pumping since 1970. Five hundred seventy-five of these acres have been mitigated through enhancement/mitigation projects; the remaining 440 acres will be revegetated with vegetation native to the Owens Valley. Approximately 1,080 acres did not successfully revegetate after Los Angeles discontinued irrigation of approximately 10,000 acres to supply additional water for the second Los Angeles Aqueduct. Nine hundred sixty of these acres have been mitigated through on-site enhancement/mitigation projects, and the remaining 120 acres will be revegetated with native vegetation. Eight hundred ninety one acres are described in the Draft EIR as receiving impacts due to a combination of

groundwater pumping and changes in surface water management and agricultural practices. Five hundred forty-one of these acres have been mitigated through enhancement/mitigation projects, 50 acres will be planted with pasture grasses and subsequently irrigated, and the remaining 300 acres will be revegetated with native vegetation.

In addition, 640 acres in the Laws area are identified as having a very low density of vegetation cover. Although the condition of this land is not necessarily the result of the project, the area will be considered by the Inyo County/Los Angeles Standing Committee for selective mitigation.

One area of approximately 700 acres east of Independence was documented in 1982 as contributing to air quality standard violations, however, this condition has been mitigated through the establishment of alfalfa and native pasture under the Independence Pasture Lands and Springfield enhancement/mitigation project (approximately 40 acres remain to be planted with native pasture) described in Chapter 5, Proposed Project. No other sources in the Owens Valley are large enough to either cause or contribute to violations.

Since one of the primary goals of the Agreement is to avoid decreases in vegetation cover, vegetation damage and resulting impacts to air quality should be prevented. Additionally, under the Agreement, those lands in the Owens Valley irrigated during the 1981-82 runoff year or that have been irrigated since then will continue to be irrigated in the future. This will prevent adverse air quality impacts associated with abandoned agricultural lands. Any future significant impacts to the vegetation or environment of the Owens Valley must be promptly mitigated by Los Angeles.

Thus, while the combined impacts of the project to air quality in the Owens Valley may have contributed to some extent to the existing violations caused by Owens Lake, these impacts have been and will be mitigated so that the effect of dust from the project will not add in any significant way to the already significant dust problem from Owens Dry Lake.

- o Page 17-6: following the fifth bulleted paragraph insert the following paragraph:

Additional information regarding the LADWP grazing management program is provided in Appendix B-1 to the Response to Comments documents.
- o Page 17-7: bulleted paragraphs 1 and 2 under the heading, 17.6 RELATIONSHIP TO OTHER WATER SUPPLY PLANS, are revised to read:
 - o San Francisco Bay-Sacramento Delta water quality and water rights hearings currently being held by the State Water Resources Control Board (SWRCB) in Sacramento. The outcome of these hearings is to be water rights discussions which promulgates Delta water quality standards and other measures intended to protect all beneficial uses of Delta water, including in-stream uses and water to Delta exporters.

3. Revisions to the Agreement and Draft EIR

- Proposed expansion of the State Water Project (SWP) in the form of Delta water transfer improvements and construction of Los Banos Grandes Reservoir and implementation of the Kern Water Bank by the California Department of Water Resources.
- Page 17-11: paragraph 1, last sentence is revised to read:

" . . . protects instream uses will determine any loss of water available for other beneficial uses including export to the Central Valley and Southern California."
- Page 17-11: last paragraph (which continues onto Page 17-12) is revised to read:

On the other hand, agricultural water conservation and conjunctive use projects undertaken by MWD are projected by MWD to yield up to 200,000 acre-feet in a dry year to the MWD service area. With a preferential right to 26 percent of MWD supplies, LADWP could receive up to 53,000 acre-feet of water from MWD from these projects.

CHAPTER 18, EIR AUTHORS, ORGANIZATIONS AND PERSONS CONSULTED

◦ 18.1 Report Preparation

LOS ANGELES DEPARTMENT OF WATER AND POWER

- Dennis C. Williams, Engineer-In-Charge, Aqueduct Division (Los Angeles)
- Duane D. Buchholz, Assistant Engineer-in-Charge, Aqueduct Division (Bishop)
- Robert G. Wilson, Northern District Engineer (Bishop)
- Russell H. Rawson, Land and Resources Manager (Bishop)
- Edward A. Schlotman, Assistant City Attorney
- David E. Babb, Range and Wildlife Specialist, EIR Coordinator (Bishop)
- Lloyd L. Anderson, Land and Water Use Engineer (Bishop)
- Patti Novak, Botanist (Bishop)
- Brian Tillemans, Wildlife Biologist (Bishop)
- Donald G. McBride, Geohydrologist (Los Angeles)
- Gene L. Coufal, Hydrologist (Los Angeles)
- Cecila K. Trehuba, Hydrologist (Los Angeles)
- Richard F. Harasick, Water Conservation

INYO COUNTY WATER DEPARTMENT

- Gregory L. James, Director
- David P. Groeneveld, Ph.D., Plant Ecologist
- William R. Hutchison, Hydrologist
- Leah Kirk, Environmental Analyst
- Thomas Griepentrog, Hydrologist
- Paula J. Villa, Project Activities Coordinator
- Antonio C. Rossmann, Special Counsel
- C. Brent Wallace, County Administrator

CHAPTER 19, BIBLIOGRAPHY

- o The Bibliography chapter has been supplemented by Appendix C-3 to the Responses to Comments document.

CHAPTER 20, GLOSSARY AND ABBREVIATIONS

- o The Glossary and Abbreviations chapter has been supplemented by Appendix D to the Responses to Comments document.

APPENDIX A

- o There are no revisions to Appendix A.

APPENDIX B

- o There revisions to Appendix B, Stipulation and Order for Judgment, are presented in Section 3.1 of this chapter.

APPENDIX C

- o Revisions to Appendix C, Wildlife Habitat Table, are presented in Appendix C-4 to the Responses to Comments document.

APPENDIX D

- o There are no revisions to Appendix D.

APPENDIX E

- o Appendix E4: A description and map of the Lower Owens River Enhancement/Mitigation Project are presented in Appendix C-2 to the Responses to Comments document. The map of the Lone Pine Regreening Project on page E-24 is revised as shown at the end of this chapter.

3. Revisions to the Agreement and Draft EIR

3.3 GRAPHICS AND OTHER REVISIONS

This section consists of a revised Table of Contents to the Stipulation and Order for Judgment, and various revised graphics described in Section 3.2 Revisions to the Draft EIR. This material is presented in the following pages.

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SECTION II

Agreement Between the County of Inyo and the City of Los Angeles and Its Department of Water and Power on a Long Term Groundwater Management Plan for Owens Valley and Inyo County	B-08
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Goals and Principles for Groundwater Management

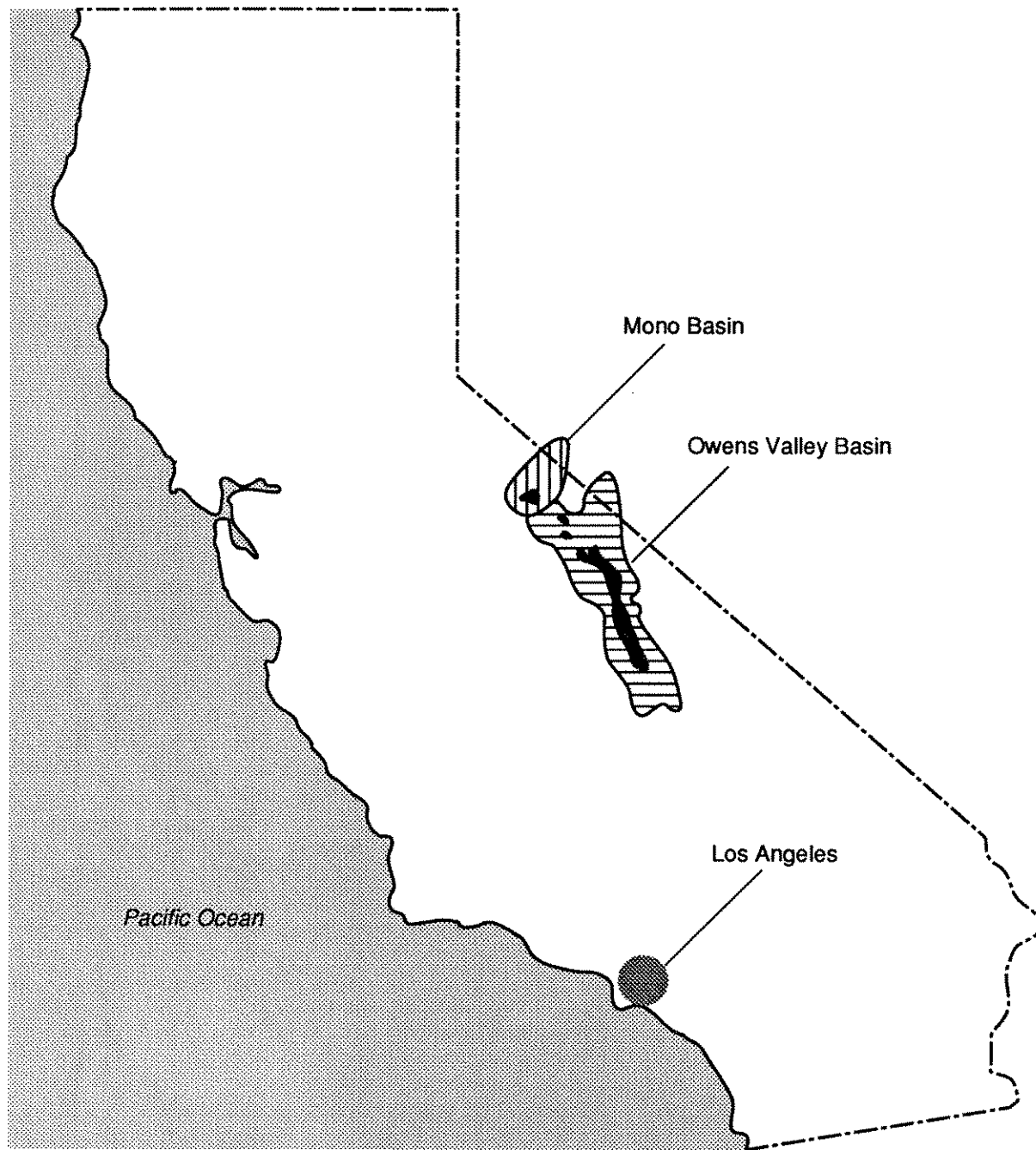
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III.	Management Strategy	B-12
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	B. Groundwater Mining	B-12
	C. Definitions	B-13
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O W E N S V A L L E Y

FIGURE S-1
PROJECT LOCATION



Lands owned by the City of
Los Angeles in the Owens Valley
and Mono Basin



Watershed Boundary - Owens Valley



Watershed Boundary - Mono Basin

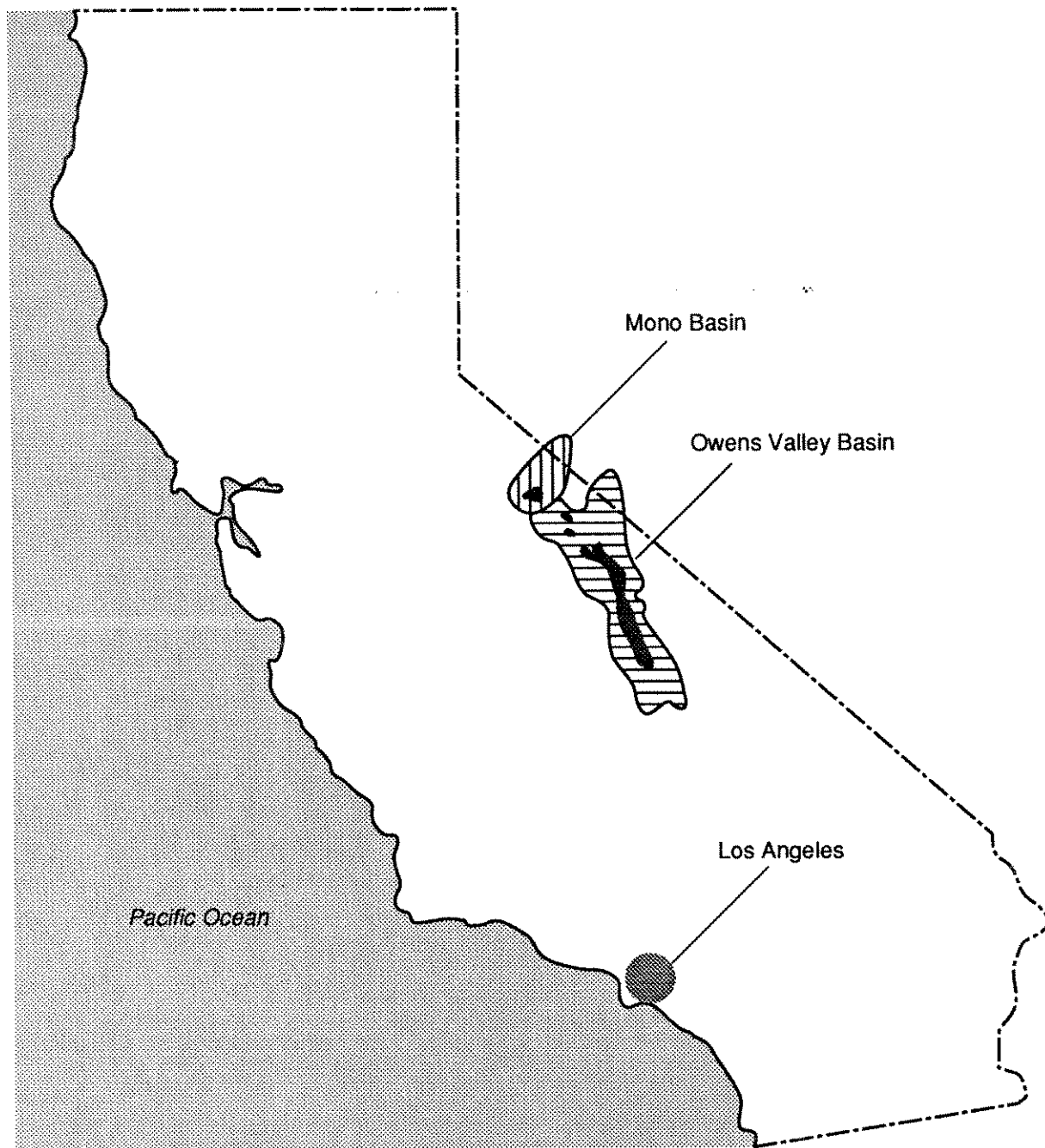
SOURCE: EIP ASSOCIATES

NO SCALE



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O W E N S V A L L E Y



Lands owned by the City of
Los Angeles in the Owens Valley
and Mono Basin



Watershed Boundary - Owens Valley



Watershed Boundary - Mono Basin

FIGURE 1-1
PROJECT LOCATION

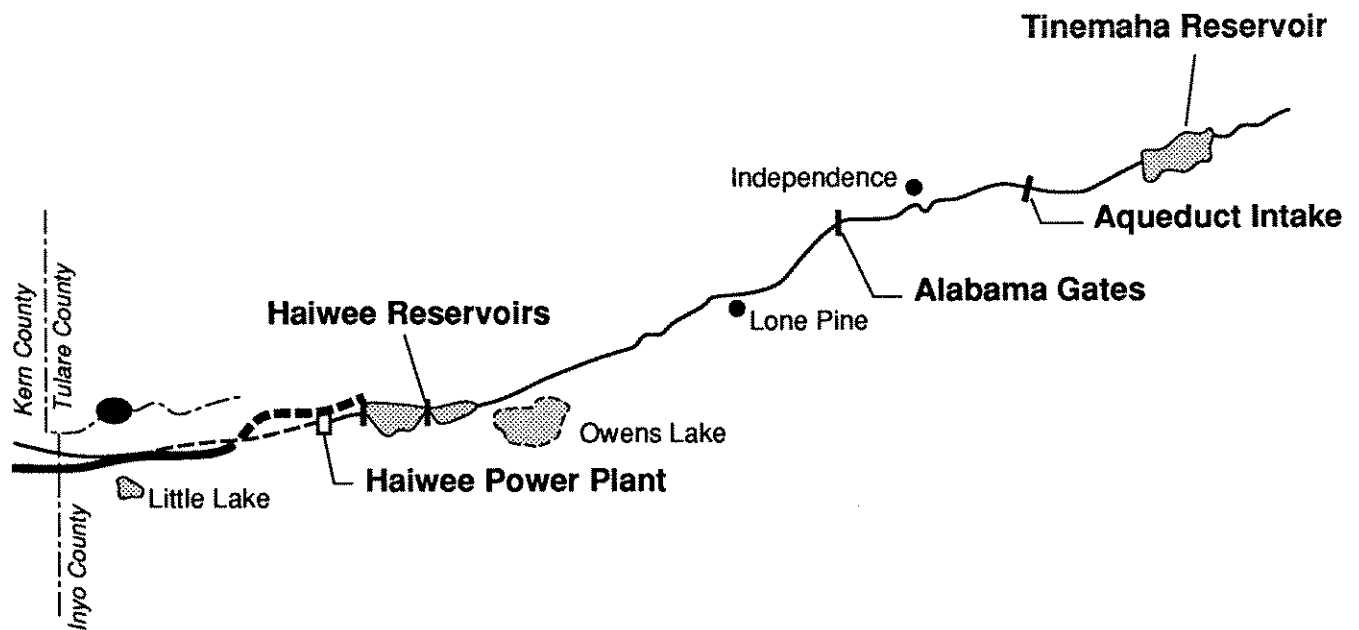
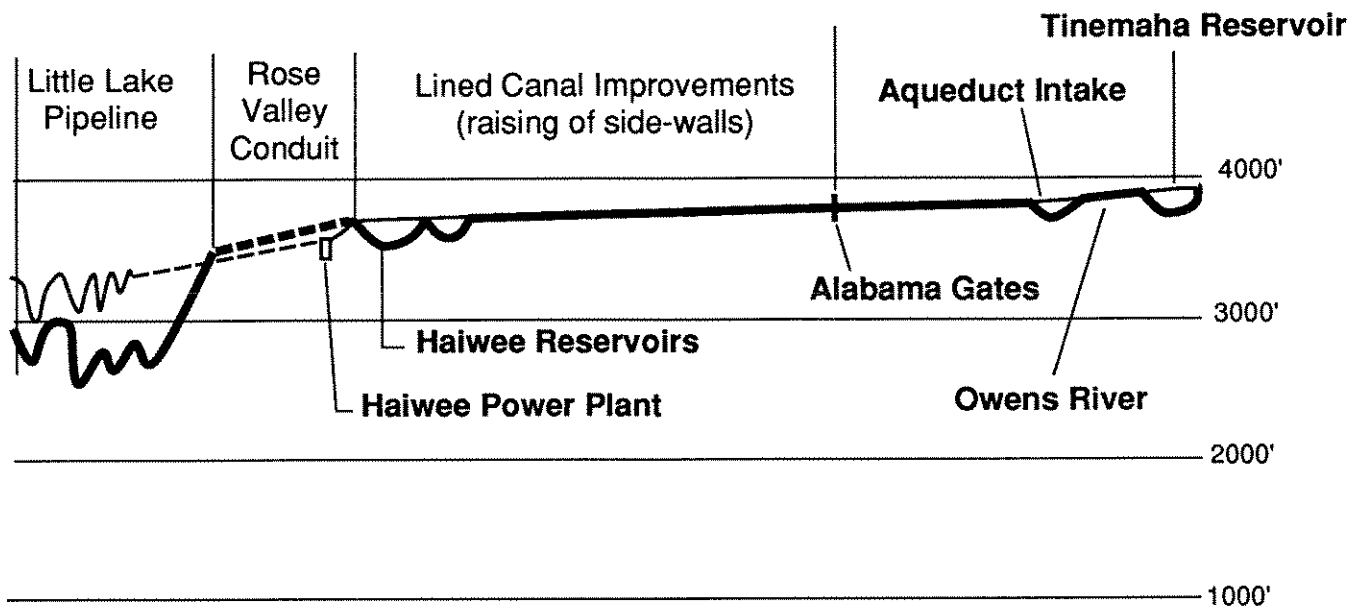
SOURCE: EIP ASSOCIATES

NO SCALE



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O W E N S V A L L E Y

FIGURE 4-1

LOS ANGELES AQUEDUCT, PLAN AND PROFILES

	Pressure Pipeline	On-Grade Conduit
1st L.A.A.	—————	- - - - -
2nd L.A.A.	—————	—————

SOURCE: LOS ANGELES DEPARTMENT OF
WATER AND POWER



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AQUEDUCT OPERATIONS 1970-1990

FIGURE 4-9

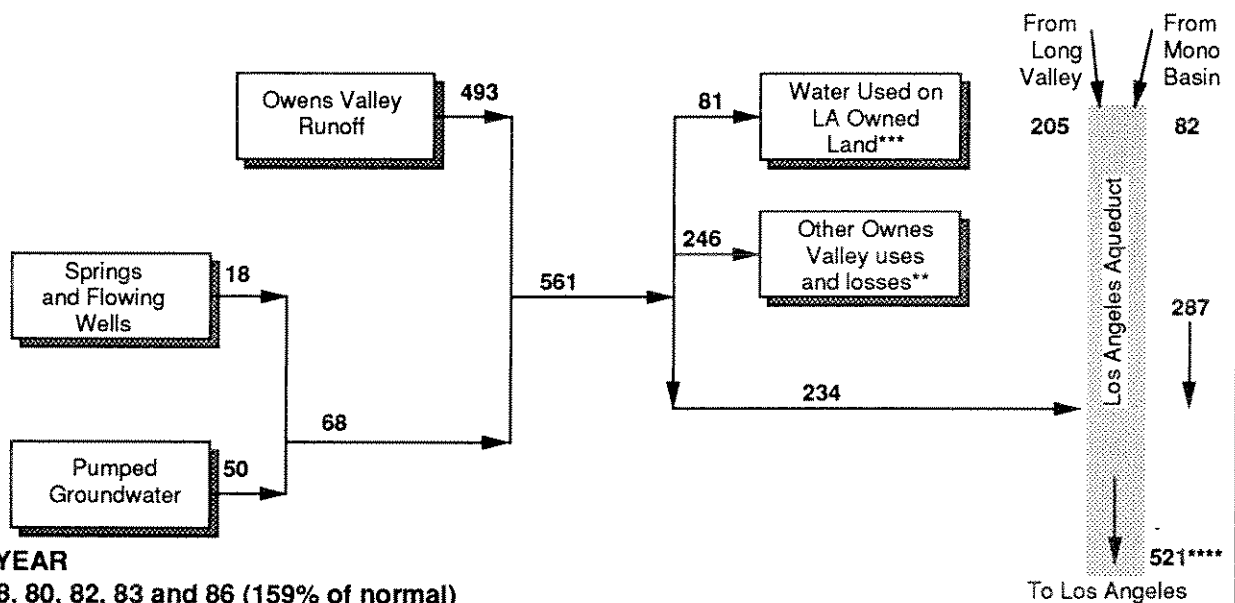
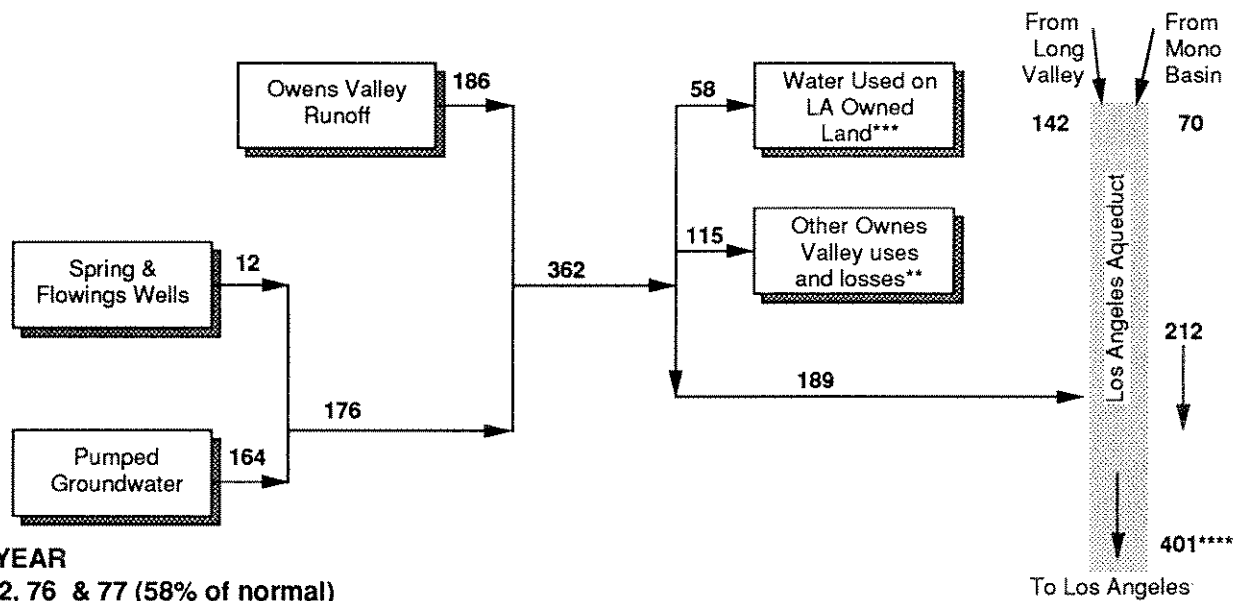
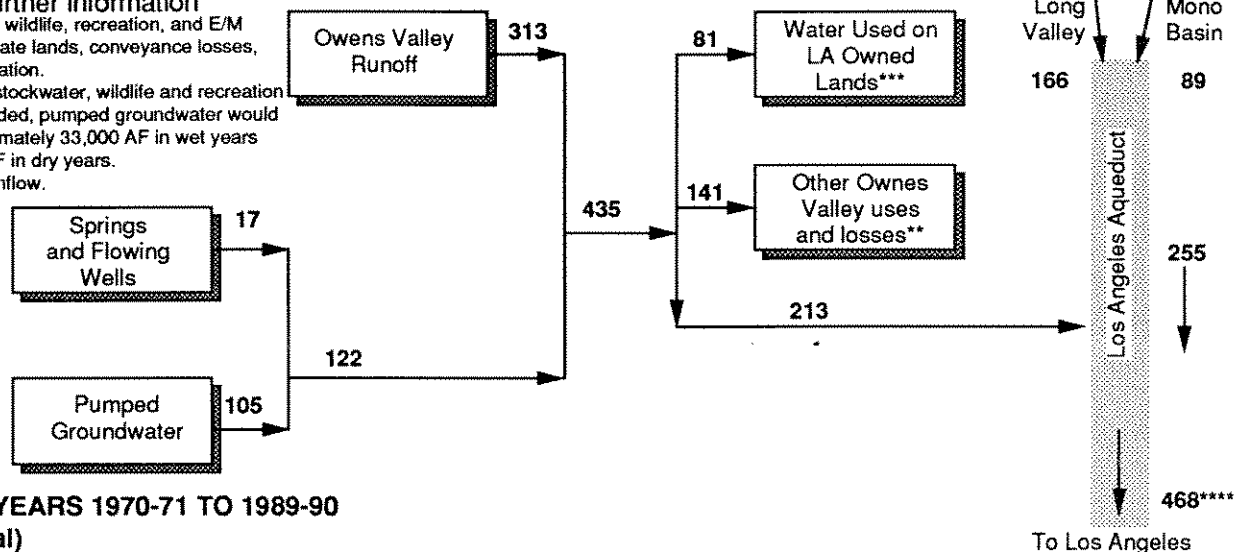
Unit: Thousands of Acre-Feet

See note 1 for further information

* Irrigation, stockwater, wildlife, recreation, and E/M
 ** Includes uses on private lands, conveyance losses, recharge and evaporation.

*** Includes irrigation, stockwater, wildlife and recreation only. If E/M is included, pumped groundwater would increase by approximately 33,000 AF in wet years and up to 33,000 AF in dry years.

**** Haiwee Reservoir inflow.



AQUEDUCT OPERATIONS 1970-1990

FIGURE 5-2

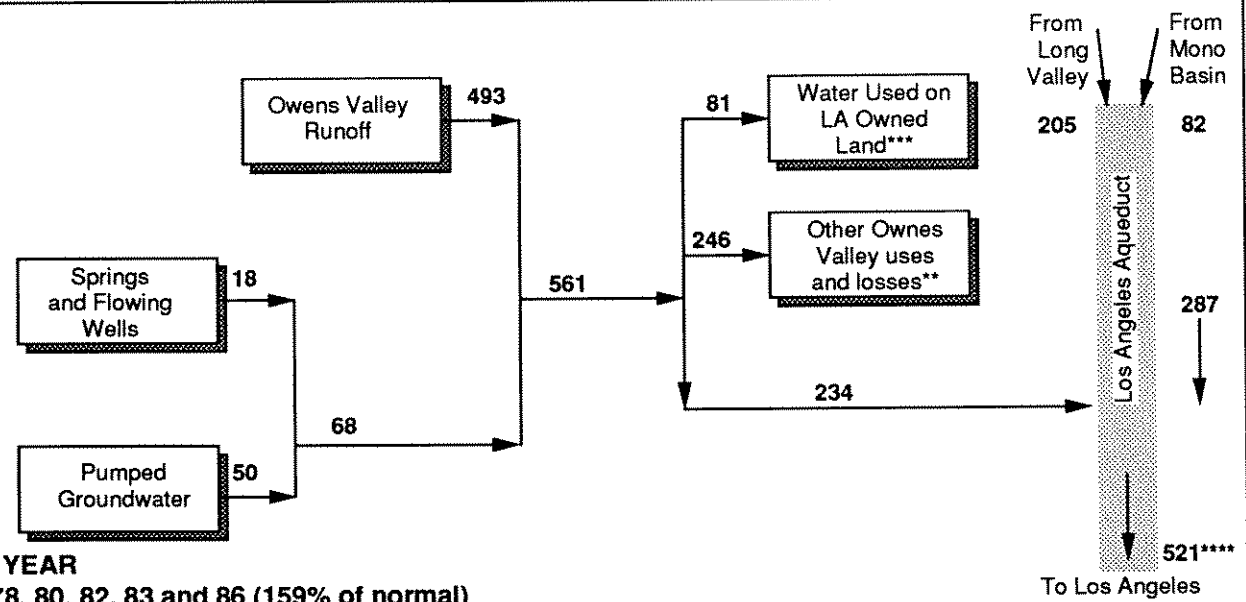
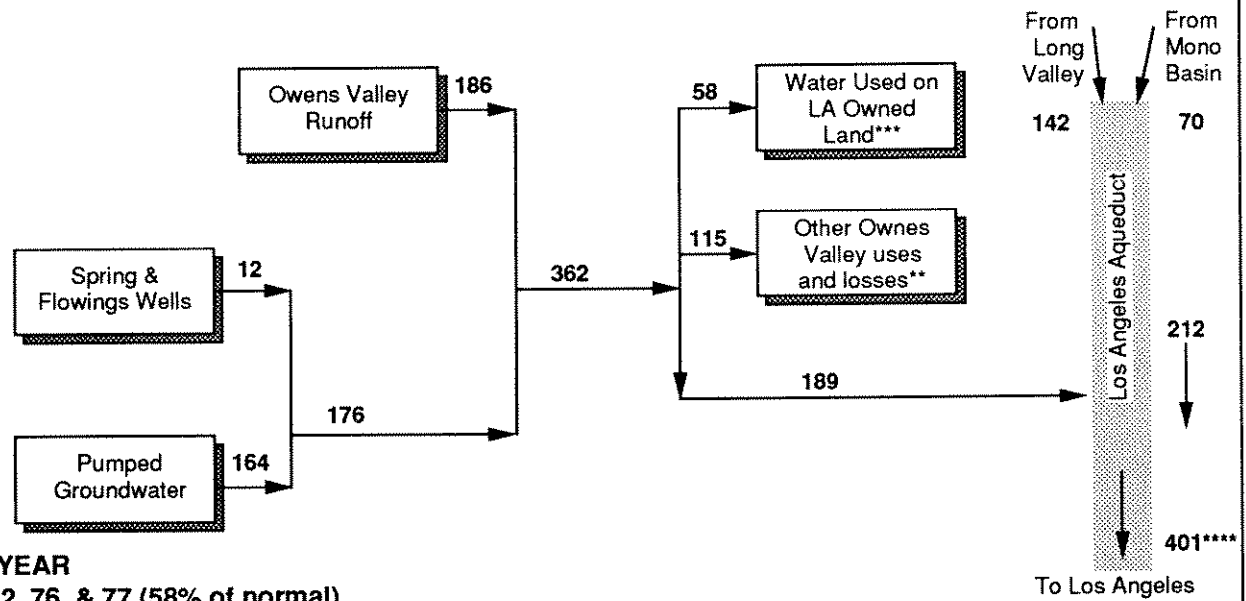
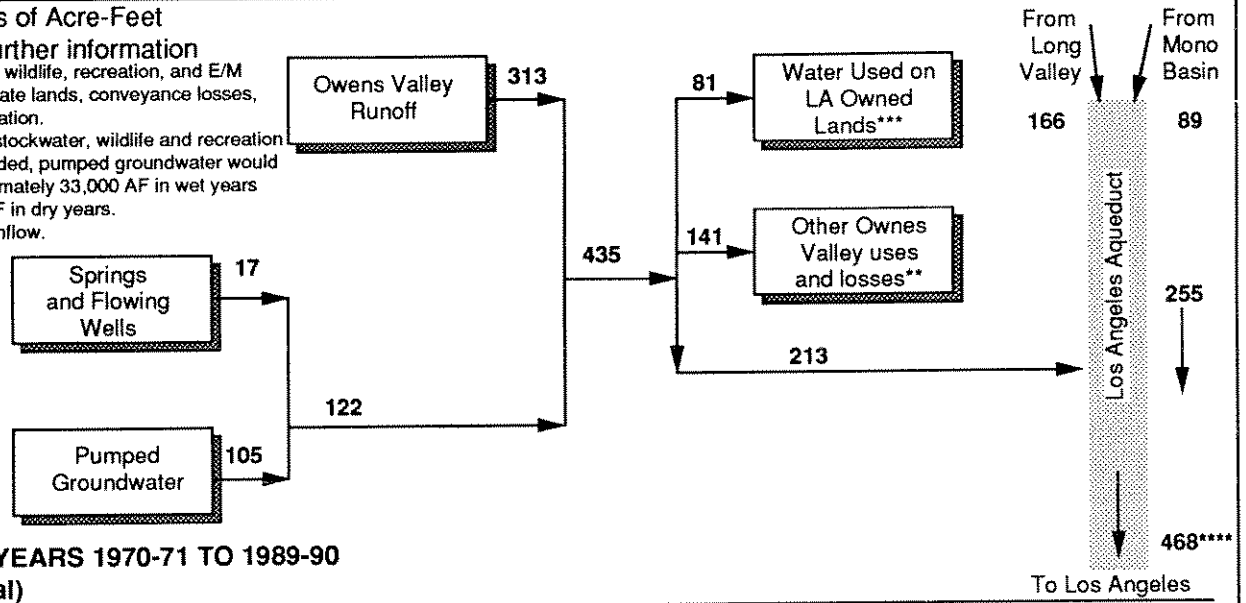
Unit: Thousands of Acre-Feet

See note 1 for further information

* Irrigation, stockwater, wildlife, recreation, and E/M
 ** Includes uses on private lands, conveyance losses, recharge and evaporation.

*** Includes irrigation, stockwater, wildlife and recreation only. If E/M is included, pumped groundwater would increase by approximately 33,000 AF in wet years and up to 33,000 AF in dry years.

**** Haiwee Reservoir inflow.



AQUEDUCT OPERATIONS UNDER THE AGREEMENT

FIGURE 5-3

Unit: Thousands of Acre-Feet

* Same runoff conditions as for Figure 5-2 assumed

**Irrigation, stockwater, wildlife, recreation and E/M.

Assumes long term average E/M supply is 30,000 AFY, with 33,000 AFY in typical wet and dry years

*** Assumes exports based on June 14, 1990, Superior Court decision regarding fish flow releases and past operations

**** Includes uses on private lands, conveyance losses, recharge and evaporation

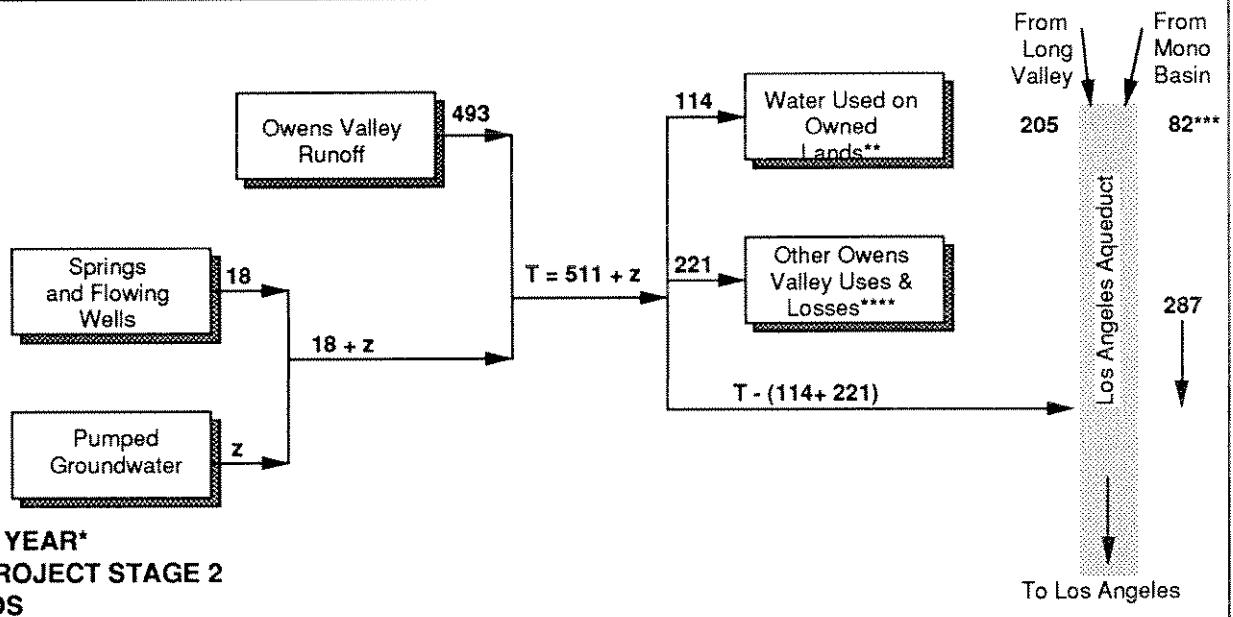
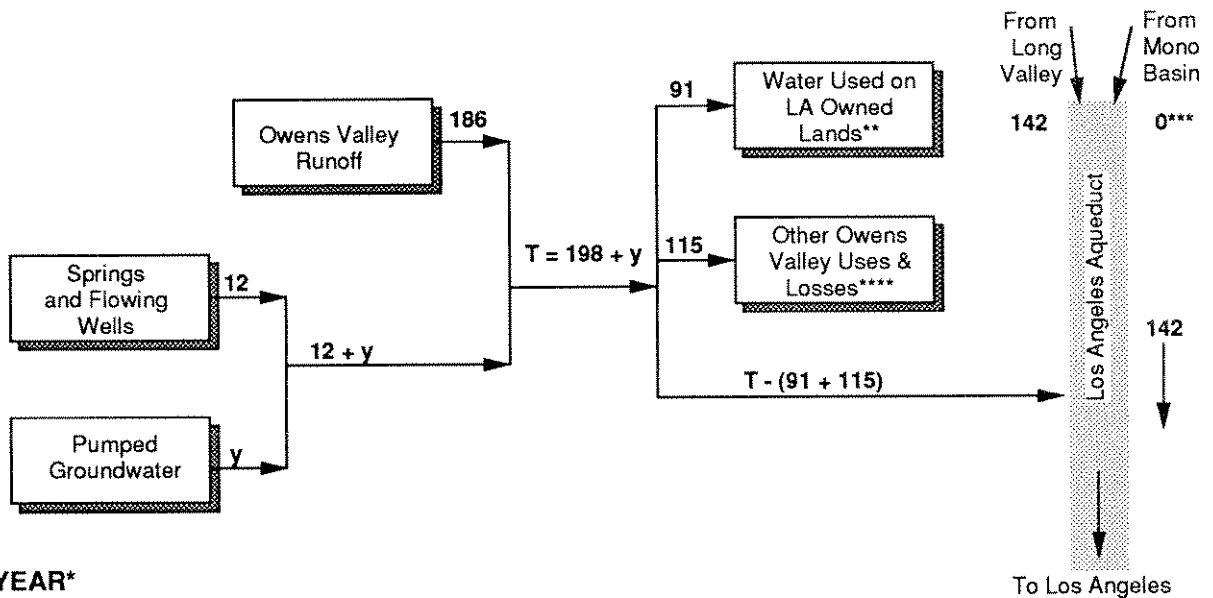
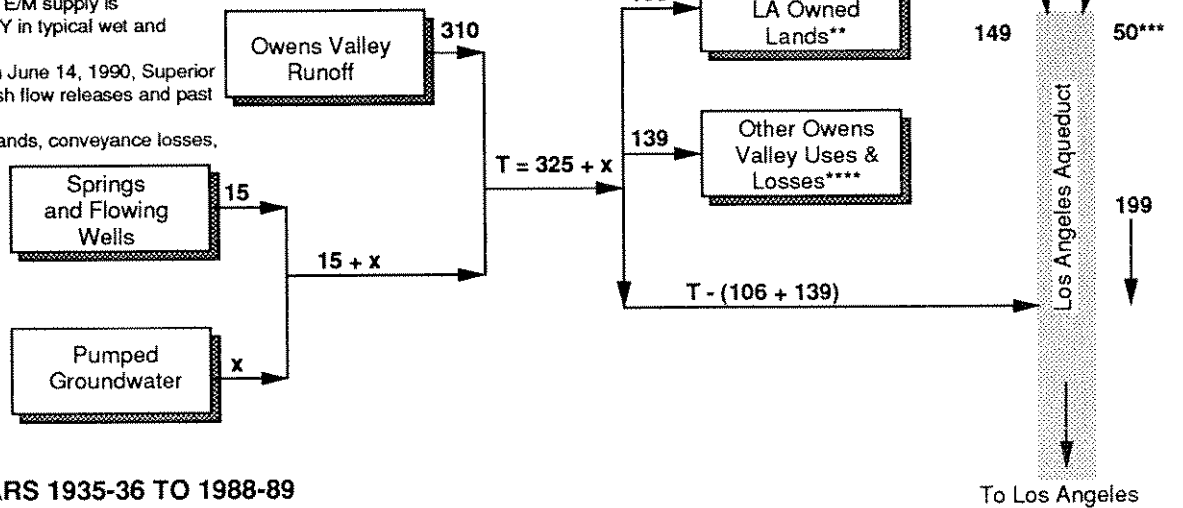
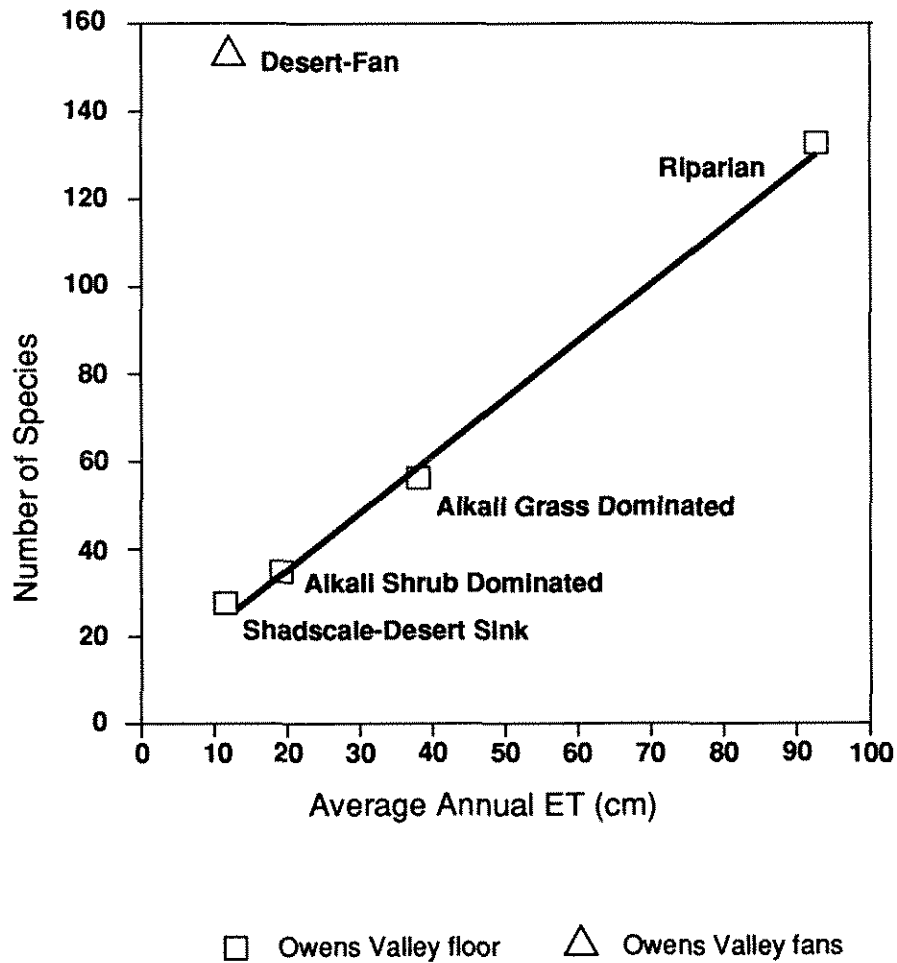


Figure 10-7

Species Richness of Owens Valley Bascular Plants Versus their water Requirements (as evapotranspiration or ET). The numbers of species of each plant group was determined by DeDcker (1988). Water Use for each plant group was determined as averages for Owens Valley *plant* communities within each group. The water requirement for the groupings was calculated as described in the Green Book.



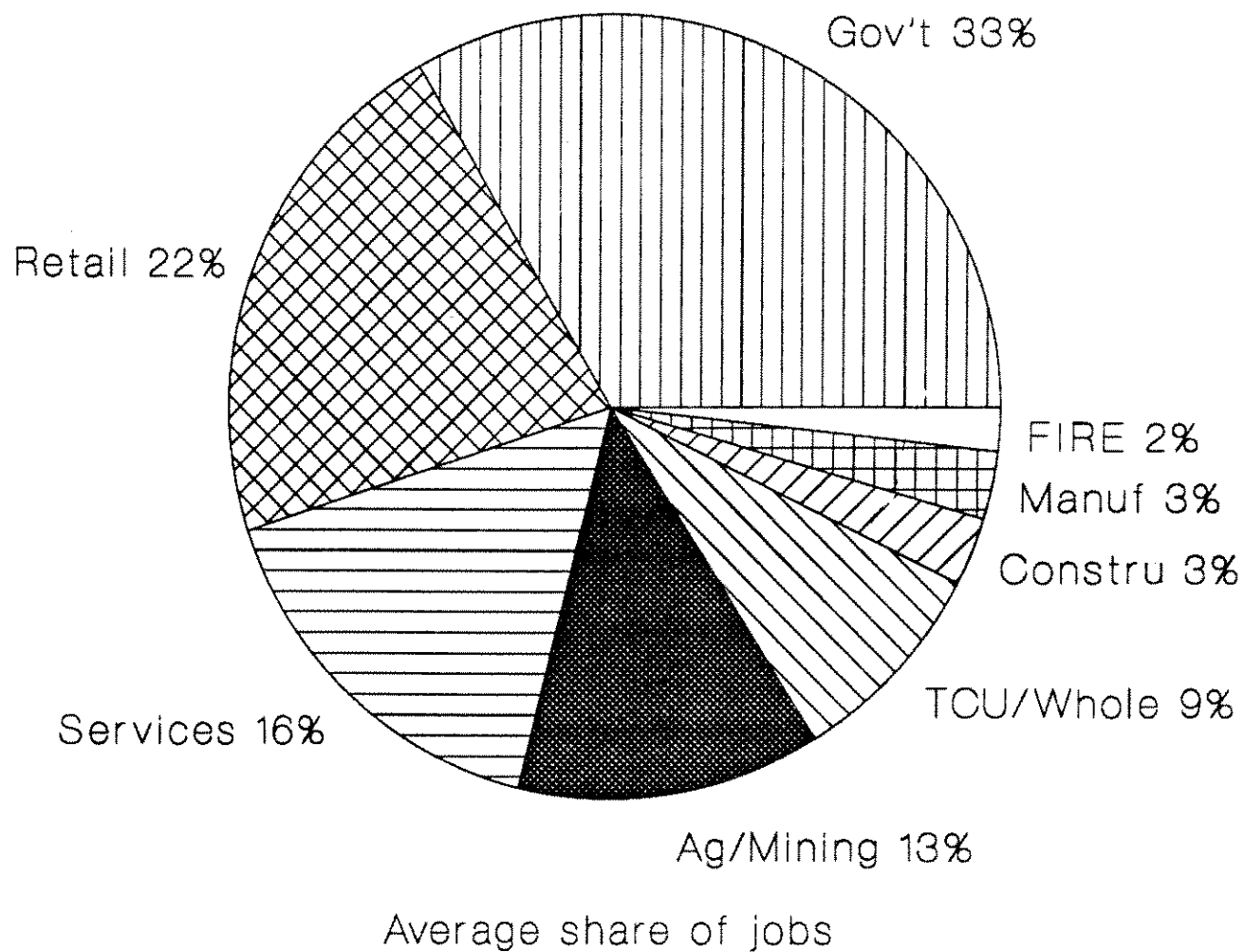
O W E N S V A L L E Y

FIGURE 10-7
VASCULAR PLANT SPECIES
RICHNESS BY HABITAT

SOURCE: DAVID P. GROENEVELD, PH.D.,
INYO COUNTY WATER DEPARTMENT



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O W E N S V A L L E Y

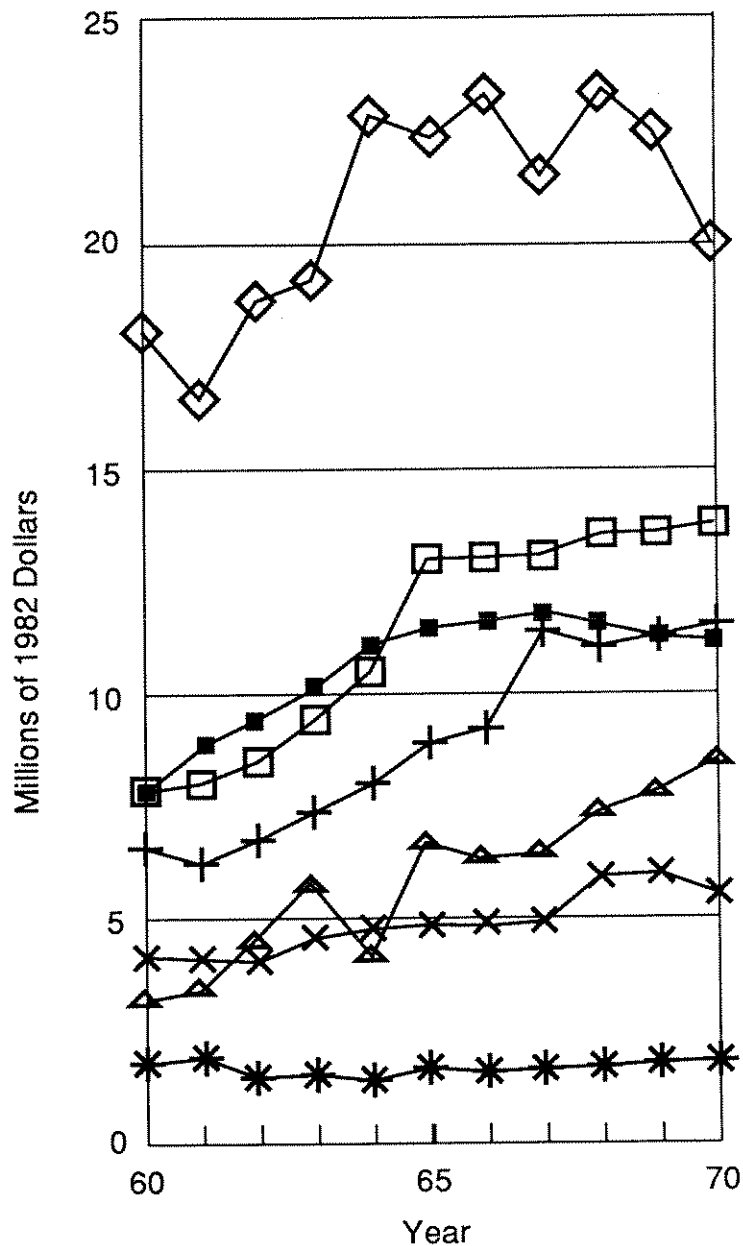
FIGURE 14-2
 INYO-MONO REGIONAL
 EMPLOYMENT STRUCTURE,
 PRE-1970

SOURCE: CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT



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- Apparel & Gen
- + Food & Liquor
- * Drugs
- Eat & Drink
- × Home & Bldg.
- ◇ Auto-related
- △ Other Retail



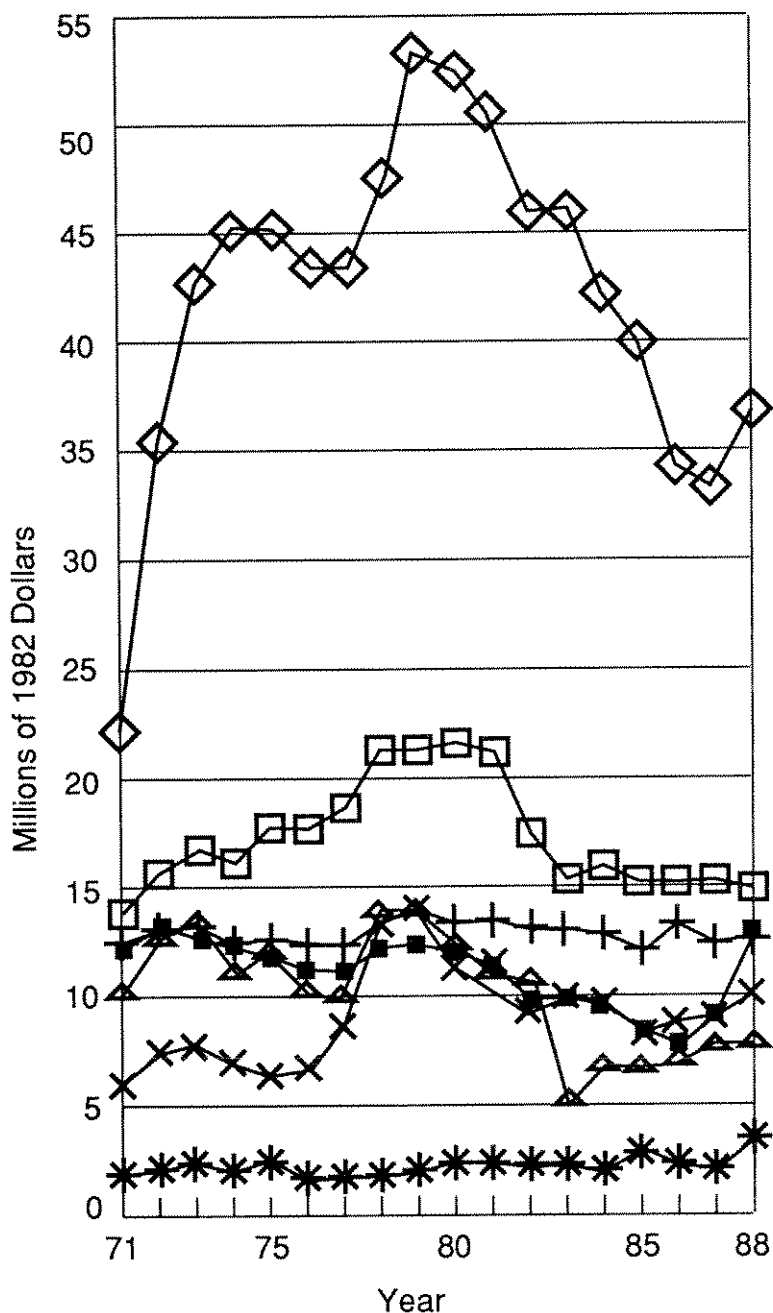
O W E N S V A L L E Y

FIGURE 14-3

TAXABLE RETAIL SALES
IN INYO COUNTY,
PRE-1970

SOURCE: STATE BOARD OF EQUALIZATION

- Apparel & Gen
- + Food & Liquor
- * Drugs
- Eat & Drink
- × Home & Bldg.
- ◇ Auto-related
- △ Other Retail



O W E N S V A L L E Y

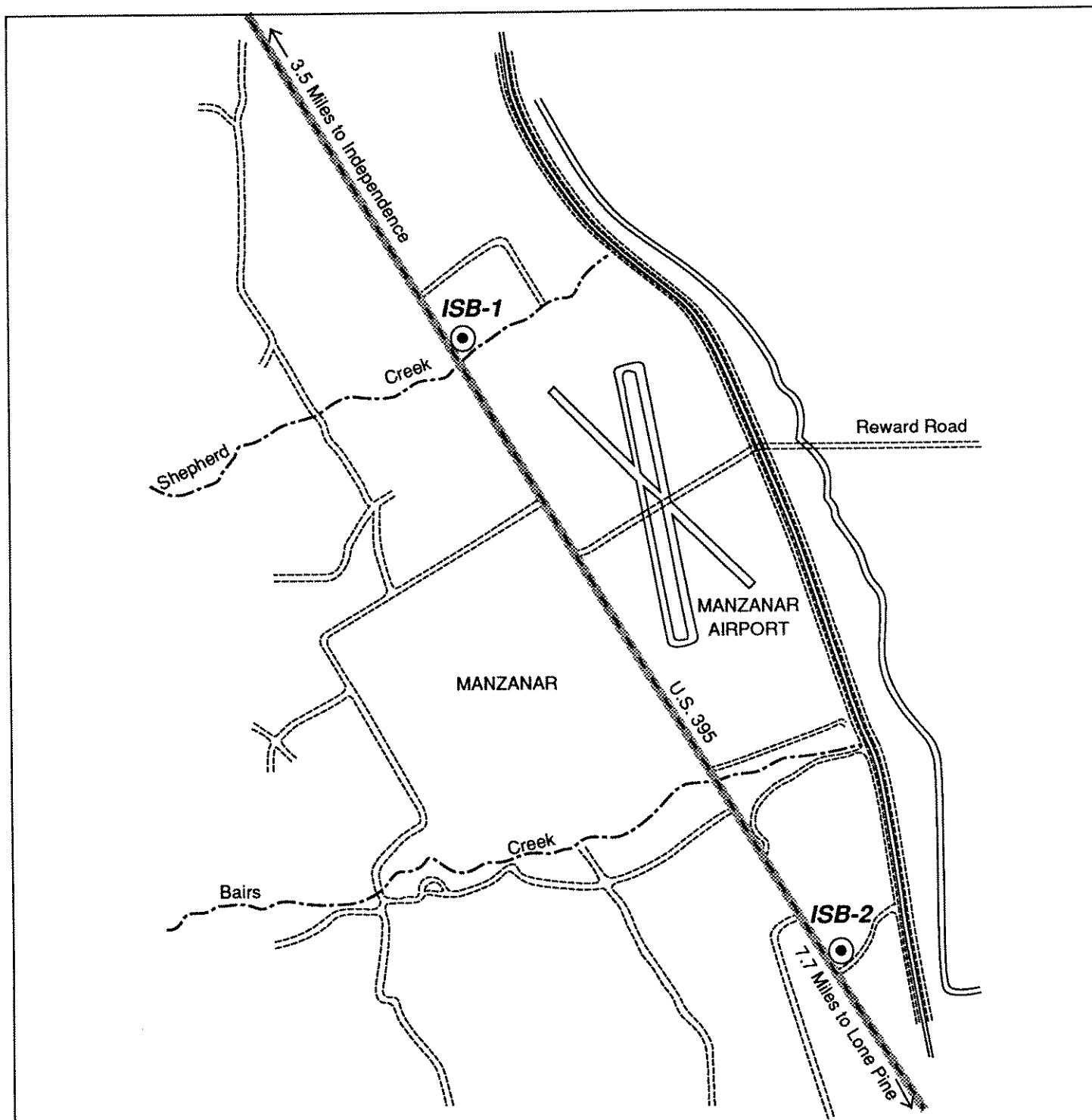
FIGURE 14-6

TAXABLE RETAIL SALES
IN INYO COUNTY
1971 - 1988

SOURCE: STATE BOARD OF EQUILIZATION

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O W E N S V A L L E Y

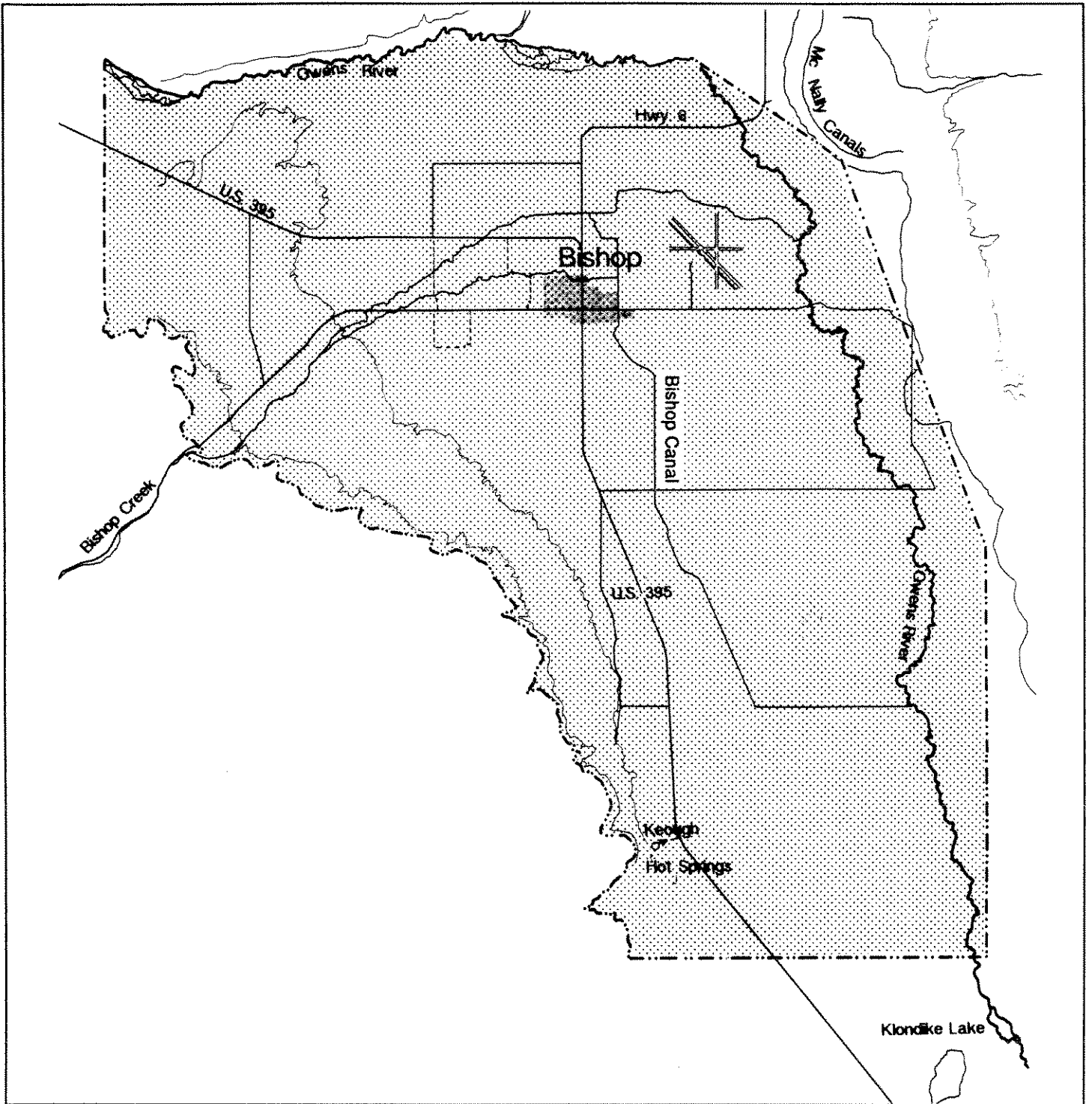
FIGURE 16-9B
PROPOSED NEW WELLS,
INDEPENDENCE
SYMME-SBAIRS AREA

SOURCE: LADWP, AQUEDUCT DIVISION

FEET 0 2000 4000



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88041



O W E N S V A L L E Y

FIGURE 16-12
BISHOP CONE BOUNDARY

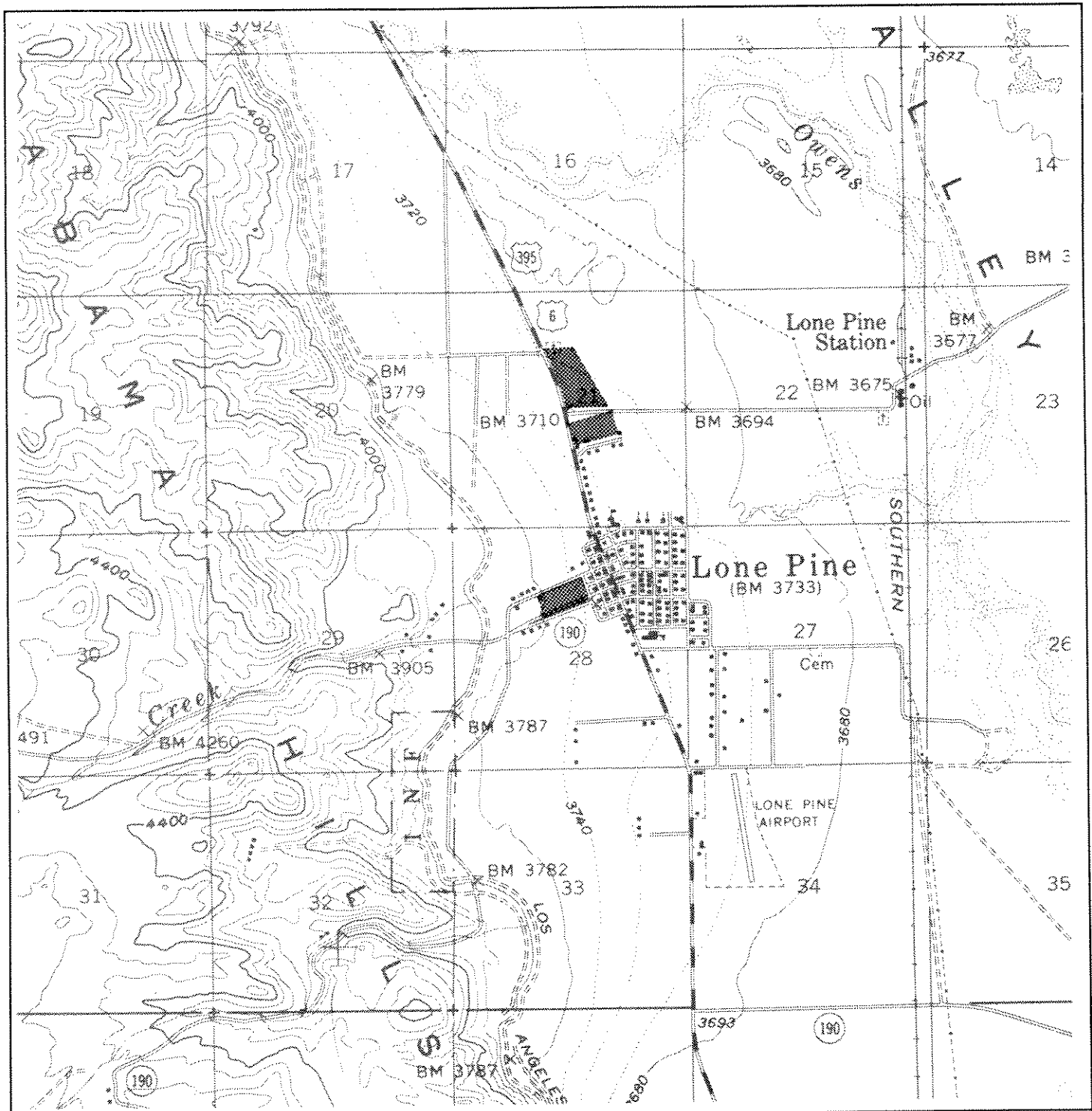
 Bishop Cone Boundary

SOURCE: INYO COUNTY WATER DEPARTMENT

MILE 0 1.5 3



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OWENS VALLEY

 Project Areas

FIGURE E4-8

E/M PROJECT LONE PINE REGREENING

SOURCE: USGS QUAD MAP AND INYO COUNTY WATER DEPARTMENT

MLE 0 0.5 1



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4. LETTER COMMENTS AND RESPONSES

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4. LETTER COMMENTS AND RESPONSES

Letter
Number Letter

FEDERAL AND STATE AGENCIES

A1 U.S. Department of the Interior, Death Valley National Monument
A2 U.S. Department of the Interior, Bureau of Indian Affairs
A3 State of California, Office of Planning and Research
A4 State of California, Department of Fish and Game
A5 United States Department of the Interior, Bureau of Land Management
A6 State of California, Department of Fish and Game
A7 State of California, Department of Fish and Game

LOCAL AGENCIES

B1 County of Inyo, Supervisor 1st District
B2 Dudley Ridge Water District
B3 Fort Independence Reservation
B4 Coachella Valley Water District
B5 Inyo-Mono County Farm Bureau
B6 Inyo County Office of Education
B7 County of Inyo, Department of Health Services
B8 Counties of Inyo-Mono, Office of Agricultural Commissioner
B9 Inyo County Water Commissioner
B10 City of Bishop, Department of Public Services
B11 Fort Independence Reservation
B12 Metropolitan Water District of Southern California
B13 Big Pine Paiute/Shoshone Band of Indians

ORGANIZATIONS AND INSTITUTIONS

C1 League of Women Voters of the Eastern Sierra, Inc.
C2 California Native Plant Society, Bristlecone Chapter
C3 University of Southern California
C4 State Water Contractors
C5 Bel Air Country Club
C6 Homeowners of Encino

<u>Letter Number</u>	<u>Letter</u>
C7	Northridge Chamber of Commerce
C8	West Hills Chamber of Commerce
C9	United Chamber of Commerce of the San Fernando Valley
C10	University of California Cooperative Extension, Inyo & Mono Counties
C11	California Native Plant Society, Bristlecone Chapter
C12	High Sierra Packer's Association, Eastern Unit
C13	Sierra Club, Toiyabe Chapter
C14	Woodland Hills Chamber of Commerce
C15	California Cattlemen's Association
C16	California Indian Legal Services
C17	Inyo County Cattlemen's Association
C18	University of California Cooperative Extension, Inyo & Mono Counties
C19	Valley Industry and Commerce Association
C20	The Mono Lake Committee
C21	Audubon Society, Eastern Sierra Chapter

INDIVIDUALS

D1	Mr. & Mrs. Frank L. Pedneau
D2	Mrs. Jane A. Dietrich
D3	Larry & Ruth Blakely
D4	Postal Patron
D5	James E. Wines
D6	Brent Patterson
D7	Melvin Shapiro
D8	Don M. Deck
D9	Alfred J. Giraud
D10	Louis de Bottari
D11	David L. Smith
D12	Eric Knudson, Fallbrook Mall
D13	Mark Bagley
D14	Rudy Garanchon, Price Pfister, Inc.
D15	Ken Rounds, Monarch Mirror Door Inc.
D16	David L. Smith, Sierra Interests, Inc.
D17	Judy Wickman
D18	James A. Wooten
D19	James C. Kerr
D20	Judith Fraser
D21	Carla R. Scheidlinger
D22	Kathy Barnes
D23	Farhad Saadat, Tissurama
D24	William Schwartz
D25	Irene Cuffe, Cuffe Guest Ranch of Movie Fame
D26	Joseph E. Stapley
D27	Ken Birchim

<u>Letter Number</u>	<u>Letter</u>
D28	Manuel Hezekiah Katalbas, Sherman Oaks Galleria Management
D29	Alton L. Fink
D30	Martha S. Gilchrist
D31	Corabelle L. Albright
D32	Carolyn M. Owen
D33	Bob Hayner
D34	Fred Patterson
D35	Scott Hubbard
D36	Rob Willis, Miller and Wood Ranch Co.
D37	Gertrude Saxton
D38	Todd & Lori Tatum
D39	John S. Clough, Forest Lawn Memorial-Parks and Mortuaries
D40	Barbara Toth
D41	Business People of San Fernando Valley
D42	Kenneth D. Miller, Miller Livestock Co.
D43	David E. Wood, Miller and Wood Ranch Co.
D44	Gerald E. Curry, Treiman, Schiffman & Curry
D45	Stan Hays
D46	Ron L. Yribarren
D47	Fred Camphausen
D48	Jo A. & Thomas S. Heindel
D49	Jeff Topp, Yribarren Ranch
D50	Jack Tatum
D51	Jeff Matteson
D52	John & Ros Gorham
D53	Derham Guiliani
D54	E.H. & Katherine Henderson, Coach & Camper Service, Inc.
D55	William W. Hayes
D56	Scott Hetzler
D57	Bill & Barbara Manning
D58	David Oldenburg, Indian Creek Mutual Water Company
D59	Elizabeth G. Tenney
D60	Susan Zaffuto
D61	Norman L. & Mary C. Bird, Bird's Industrial Complex
D62	Mark Johns
D63	Al Pelkey, Pacific Trade Center
D64	Jennifer Duncan
D65	Mark J. Lacey
D66	Jeanne Lopez
D67	Tom Noland, Spainhower Anchor Ranch
D68	Francis Pedneau
D69	Melinda Salmonds
D70	Jeanne Walter
D71	Joe Washington
D72	Lois E. Wilson
D73	Mary DeDecker

<u>Letter Number</u>	<u>Letter</u>
D74	Mrs. D. Hussey
D75	Brent Patterson
D76	Dr. Nancy Peterson Walter
D77	Robert Jellison
D78	Deanna Johnson
D79	Kathleen Landers
D80	Dan Beets
D81	Bud Cashbaugh, Cashbaugh Ranch
D82	Sylvia Colton
D83	Lana Johns
D84	Kathy Noland
D85	Derik Olson
D86	Pat Roberts
D87	John K. Smith
D88	Jim J. Tatum, Tatum Cattle and Hay Co.
D89	Stanley J. Trizinsky
D90	Richard Potashin
D91	Andrew Kirk
D92	Josephine Lijek
D93	Phyllis Mottola
D94	Myron E. Alexander
D95	Tom & Linda Lorenz
D96	Sharon Rose
D97	Mary DeDecker
D98	Irene Yamashita

PUBLIC MEETING TRANSCRIPTS

E1	December 4, 1990, Town Hall, Big Pine, California
E2	December 5, 1990, American Legion Hall, Independence, California
E3	December 11, 1990, Bishop High School Auditorium, Bishop, California
E4	December 12, 1990, Statham Hall, Lone Pine, California
E5	December 13, 1990, Los Angeles Department of Water and Power, Los Angeles, California

FEDERAL AND STATE AGENCIES

Letter A1

U.S. Department of the Interior, Death Valley National Monument



United States Department of the Interior

NATIONAL PARK SERVICE
DEATH VALLEY NATIONAL MONUMENT
DEATH VALLEY, CALIFORNIA 92328

IN REPLY REFER TO:

L76

December 21, 1990

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

RECEIVED
JAN 03 1991
EIP ASSOCIATES
SAN FRANCISCO, CA

Dear Mr. Davis:

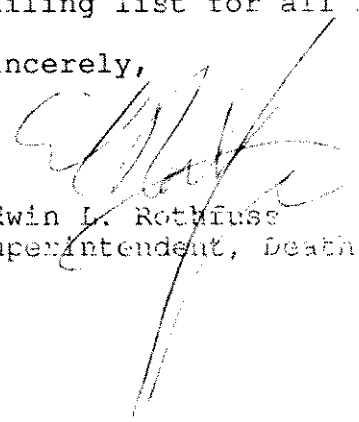
On behalf of the National Park Service and Death Valley National Monument, I would like to submit the following comments on the draft Environmental Impact Report regarding water gathering activities by Los Angeles in the Owens Valley.

Our primary concern is the deficiency in the document concerning the effect of water diversion on regional air quality, which affects a unit of the National Park System. Diversion of Owens Valley water by the city of Los Angeles has resulted in regular incidents of air quality degradation in the Owens Valley and surrounding areas. Water diversion has reduced the areal extent of water and vegetation in the Owens Valley, thus exposing fine-grained lakebed sediments to the effects of wind. As a result, winds are more prone to lift and transport lakebed sediments, and such sediments are transported into other basins, such as Death Valley. The EIR should attempt to define and mitigate this impact.

Under the provisions of the Clean Air Act of 1990, federal land managers have an affirmative responsibility to protect air quality related values. The transport of airborne sediments from the Owens Valley lakebed represents a human-caused impact on a National Park Service unit, and, as such, it can and should be mitigated.

Thank you for the opportunity to comment on the draft EIR. Please add the National Park Service, Death Valley National Monument to your mailing list for all information regarding this matter.

Sincerely,


Edwin L. Rothfuss
Superintendent, Death Valley National Monument



RESPONSES TO COMMENTS LETTER A1

RESPONSE A1-1

The Draft EIR acknowledges that Owens Dry Lake is a source of dust. Please refer to responses to master comments PD-3, related to project description, and AQ-1, pertaining to air quality.



Letter A2

U.S. Department of the Interior, Bureau of Indian Affairs



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

Sacramento Area Office
2800 Cottage Way
Sacramento, California 95825

JAN 24 1991

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

Dear Mr. Davis;

The following are the Bureau of Indian Affairs preliminary comments concerning the Draft Environmental Impact Report titled " Water From the Owens Valley to Supply the Second Los Angeles Aqueduct."

Acting on behalf of the Owens Valley Tribes; Big Pine, Lone Pine, Ft. Independence, Bishop, and Benton, the Bureau of Indian Affairs has determined the referenced document to be incomplete, as well as insufficient, in terms of addressing impacts to Indian lands. The Bureau's comments on specific sections of the EIR are as follows:

1.) Section 2 " HISTORY OF WATER DEVELOPMENT"

This section merely brushes upon the history of Indian Water Rights in subsection 2-3 development of the valley. On page 2-7 there is a recognition that the original residents of the Owens Valley were Paiute/Shoshone Indians. Further, on page 2-9 there is an incomplete and inaccurate description of a 1939 land exchange which was negotiated between Los Angeles and the Bureau of Indian Affairs on behalf of the Indians now located at the Bishop, Big Pine, and Lone Pine Reservations. Fort Independence Indian Reservation is only mentioned as not having participated in the land exchange and there is no mention of the Benton Paiute Indian Reservation.

This EIR should have an indepth discussion of all tribal water rights affected by this proposed project, including appropriative, riparian, surface, groundwater, and reserved Indian water rights off and on Reservations. Each of the Indian Tribes have water rights which will be affected by this project and the EIR fails to recognize or adequately address those established rights. Not only has the EIR failed to discuss the Indian rights, but the preparers have failed to contact the Bureau of Indian Affairs or the affected Indians to discuss the impact of the proposed project upon the Reservations.

2

2.) Section 5 "Proposed Project"

The premise that section 5 is based upon is that Los Angeles owns all the water in Owens valley. This premise is incorrect. Tribal water rights are being entirely overlooked under this premise and must be addressed. Further, using vegetation as an environmental indicator may be correct only if you own all the water. As an example, the 1939 land exchange agreement specified that "Prime Agriculture Lands" were to be exchanged for the Indian lands in 1939, it is the contention of the Bureau of Indian Affairs, and the Owens Valley Tribes, that the volume of water which is to be pumped from the valley will adversely impact accessible plant moisture to such an extent as to allow for the introduction of invader plant species that would depreciate the potential of the "Prime Agriculture" lands. Depreciation of the agriculture lands as a result of actions of Los Angeles may constitute a breach of the 1939 exchange agreement. Therefore, if vegetation is to be used as the indicator for pumping rates in the Owens Valley, the amount and type of vegetation which was found on the exchanged lands in 1939 should be used as the baseline indicator for the exchanged lands. This of course, would not include the Benton or Ft. Independence Indians whose rights must also be addressed.

The EIR should be amended to reflect that such indicators will be used.

3

3.) Section 7, "Impact Assessment Method and Summary of Impacts and Mitigation Measures".

Independent of Tribal and BIA input, Inyo County and the City of Los Angeles has drafted a Groundwater Management Plan and the subsequent EIR. As a consequence, the document does not accurately describe or reference Indian lands from the time when the Reservations were created. As a result, this section is incomplete as it does not evaluate the impact on Indian land and water rights in the Owens Valley. It is recommended therefore, that Inyo County and the City of Los Angeles work with each of the affected Tribes, and the BIA, in order to acquire an accurate description of impacts to the land and water rights in the valley in order to establish an acceptable mitigation plan.

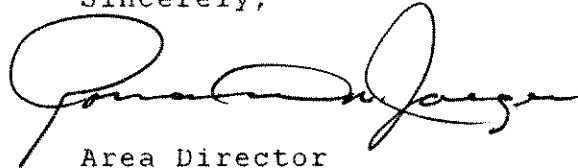
-Section 9 "Water Resources".

This section illustrates that the groundwater table in the Owens Valley is being lowered due to the continued and/or increased pumping by LADWP. The pumping has caused several wells to become depleted and/or their recharge capabilities have been weakened to such an extent that it has affected crop production. The mitigation proposed by LADWP includes: 1.) drilling new wells and 2.) adjustment of power bills. However, no specific mitigation is made for Indian land and water rights. Mitigation of Indian resources should therefore be discussed.

4

For additional information, please contact Mr. Patrick Hemmy, Area Natural Resources Officer, at (916) 978-4703.

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald M. Jaeger", written in a cursive style.

Area Director

Ronald M. Jaeger

RESPONSES TO COMMENTS

LETTER A2

RESPONSE A2-1

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 A2-2

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.

The statement that the premise of the project is that Los Angeles owns all the water in Owens Valley is incorrect. The basis for impacts and standards of significance are as described in the Draft EIR, and will remain unchanged in this Final EIR.

RESPONSE A2-3

It is believed that the analysis and evaluation of environmental impacts contained in the Draft EIR are accurate and reasonable. Please refer to response to master comment PD-10, pertaining to determination of significant effects on the environment, both on and off Indian lands.

RESPONSE A2-4

During the preparation of the Draft EIR, the public review period, and this Final EIR, no evidence was discovered or offered that substantiates the claim that Indian water resources (surface water or wells) or crop production have been significantly affected by the project (as defined by CEQA) and thus require consideration of mitigation. Please refer to response to master comment PD-

Responses to Comments
Letter A2

10 for further discussion of provisions of the Agreement and/or other legal rights or remedies available to protect Indian water rights and water resources.

Letter A3

State of California, Office of Planning and Research

OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET
SACRAMENTO, CA 95814

RECEIVED

JAN 8 1991

EIP ASSOCIATES
SAN FRANCISCO, CA

Jan 04, 1991


JOHN A DAVIS
CITY OF LOS ANGELES, DEPT. OF WATER & POWER
C/O EIP ASSOC. 150 SPEAR ST.
SAN FRANCISCO, CA 94105Subject: INCREASED PUMPING OF THE OWENS VALLEY GROUND WATER BASIN
SCH # 89080705

Dear JOHN A DAVIS:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call John ^{Keene} ~~Vanderbilt~~ at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,


David C. Nunenkamp
Deputy Director, Permit Assistance



RESPONSES TO COMMENTS
LETTER A3

RESPONSE A3-1

Comment noted. Thank you for your interest and participation in the EIR process.



Letter A4

State of California, Department of Fish and Game



DEPARTMENT OF FISH AND GAME

Region 5
330 Golden Shore, Suite 50
Long Beach, California 90802
(213) 590-5113



January 28, 1991

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

Dear Mr. Davis:

The Department of Fish and Game (DFG) has reviewed the Draft Environmental Impact Report (DEIR) entitled "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct". The proposed project consists of all water management practices and facilities that were implemented or constructed in Owens Valley to supply water to the second aqueduct which was completed in 1970. This document is identified as a program EIR even though a part of the project has been in operation since 1970. Elements of the proposed project addressed in this DEIR are:

- (a) The Agreement between the County of Inyo (County) and the City of Los Angeles and its Department of Water and Power (DWP) on a Long Term Groundwater Management Plan for Owens Valley and Inyo County (Agreement) as required by the Courts to resolve ongoing litigation between the two parties.
- (b) Increased export, beginning in 1970, of water from Owens Valley to Los Angeles from increased groundwater pumping, a reduction in the amount of irrigated acreage of DWP lands, and an increase in the amount of surface water diverted for export.
- (c) New groundwater recharge facilities in the Laws and Big Pine areas.
- (d) A continuation of environmental projects implemented by DWP between 1970 and 1984.
- (e) A continuation of enhancement/mitigation projects implemented since 1985 by the County and DWP.

The document also identifies the following elements of the proposed project that will not be implemented or constructed until after future environmental review as required by CEQA:

- (i) Implementation of the Lower Owens River Project.
- (ii) Provision of a supply of water and funding for water supply ditches in Big Pine.

- (iii) Implementation of a salt cedar control program.
- (iv) Releases of Los Angeles owned land for public and private use.
- (v) Transfer of water systems owned by Los Angeles to Inyo County (or other public entity) in the towns of Lone Pine, Independence, Big Pine, and Laws.
- (vi) Rehabilitation and expansion of parks and campgrounds on Los Angeles owned lands that are leased and operated by Inyo County.
- (vii) Recreational use of South or North Haiwee Reservoir.

Furthermore the proposed project as identified in the document includes only the facilities or practices for water gathering by DWP within Inyo County but the facilities or practices for water gathering by DWP in the Mono Basin or Long Valley of Mono County to supply water to the second aqueduct are excluded. Owens River extends beyond Inyo County boundaries, and the water gathering activities by DWP in both Inyo and Mono counties are inextricably linked, since the water from both sources is comingled for supply to the second aqueduct. Therefore, piecemealing the project in a Program EIR seems inappropriate and contrary to CEQA Guidelines.

The Owens Valley is the host for a myriad of fish and wildlife resources for which the DFG has concerns. Tule elk, mule deer, waterfowl, upland game birds and mammals, nongame species of birds and mammals including the state Endangered Western yellow-billed cuckoo, state and federal Endangered Least Bell's Vireo and Southern bald eagle, federal candidate Western snowy plover, rare and endangered plant species such as Owens Valley checkerbloom, warm and cold water fisheries associated with the Owens River and cold water fisheries in the numerous tributaries to the Owens River. The Owens River Wild Trout Section which encompasses 16 miles of the River from Pleasant Valley Dam downstream to Five Bridges is a designated Wild Trout stream and is one of California's most heavily utilized wild trout streams. These streams are not stocked by the DFG, but depend upon natural trout reproduction and habitat quality to maintain their fisheries. Springs and seeps in the Owens Valley contain two species of State and Federal listed endangered fish and provide critical islands of riparian habitat and water sources for many wildlife species in this arid region. These springs and seeps also contain salamanders and invertebrates, several of which are known only from the Owens Valley. Department owned facilities that are impacted include Black Rock and Fish Springs fish hatcheries.

The DFG is also concerned with DWP practices in the Mono Basin and Long Valley due to valuable aquatic, riparian, and recreational resources which include; Crowley Lake and its tributaries, Hot Creek which is also a designated Wild Trout water, the upper Owens River, and the streams in the Mono Basin and Mono Lake. Wildlife resources at risk include sage grouse, mule deer, waterfowl, upland birds and mammals, nongame species such as gulls, terns,

and shorebirds, especially snowy plovers, which utilize Mono Lake and associated wetlands, state and federal Endangered Peregrine falcon and Southern bald eagle, and several species of rare and endangered plants.

These concerns are exemplified by the tremendous recreational use of the area. In 1985 the visitor use on the Inyo National Forest exceeded that of Yellowstone, Glacier, and Grand Canyon National Parks combined. The lands and resources adjacent to the Forest, including DWP lands, contribute to the enormous recreational use of the area. Some of the most heavily utilized fish and wildlife values in Long Valley are situated on DWP lands.

The DFG has the statutory responsibility to preserve, protect, and manage fish and wildlife resources including their habitats, as stated in Fish and Game Code Section 711.7 (a): "The fish and wildlife resources are held in trust for the people of the state by and through the department"; Section 1802: "The department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species"; and Section 711.2 (a): "... wildlife means and includes all wild animals, birds, plants, fish, amphibians, and related ecological communities, including the habitat upon which the wildlife depends for its continued viability ...". It must be recognized that rivers are an integral system from their headwaters to their mouths and that once destroyed or greatly diminished in an ecological sense may never be restored. Therefore they deserve the highest degree of protection from the State as the public trustee.

Furthermore, our authority to review and provide comments on the DEIR has been validated by the Court, which "...made clear that regardless of the agreement of the parties, it did not want to foreclose CEQA review of their product by other interested parties and ultimately the Court itself." (DEIR Page 2-17).

The DWP and County also have a responsibility to protect the natural resources on the lands under their control. CEQA Section 21000 (f) (g) declares that it is the policy of the state to: "require governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality" and "require governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long term benefits and costs, in addition to short term benefits and costs and to consider alternatives to proposed actions affecting the environment."

The DFG has identified serious inadequacies in the DEIR in regard to project description, direct, indirect, and cumulative impacts, mitigation, and alternatives. The major deficiencies are noted here, with the specific comments in the attachment. Department concerns were identified in our letter of September 18, 1989 (attached), and in our comments on the draft Agreement between DWP and the County. A thorough discussion of all of our concerns is necessary in order for the DEIR to be a full disclosure CEQA document.

1. PROJECT DESCRIPTION AND BOUNDARIES

2

We believe that given the project description the scope of the document should be expanded to include the Mono Basin and Long Valley. CEQA Guideline Section 15130(b)(1)(A) requires the Lead Agency to discuss not only approved projects under construction and approved related projects not yet under construction, but also unapproved projects currently under environmental review with related impacts or which result in significant cumulative impacts. The proposed project to supply water to the second aqueduct ignores the impacts associated with water gathering activities in Mono County. We believe these impacts are significant and are currently unmitigated, and that the total water gathering activities to supply the second aqueduct are separate and divisible from the construction of the aqueduct and are subject to CEQA. Therefore, the scope of the DEIR should be expanded pursuant to CEQA Guideline Section 15168 which states in part:

A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either geographically or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Therefore the scope should include all water gathering activities and operations in the Mono Basin and Long Valley to supply water for the second aqueduct, and an assessment of the impacts to fish and wildlife resources including habitats, and recreational use.

The activities currently being assessed by the State Water Resources Control Board (SWRCB) under the supervision of the courts, utilize 1989 as the baseline for preproject conditions, and are concerned with the impacts of a potential reduction in Mono Basin water exports and the effects on downstream waters and resources. Whereas the impacts to natural resources resulting from water gathering activities to fill the second aqueduct resulted from the increase in diversions from the Mono Basin and increased groundwater pumping. Thus, these two projects (the SWRCB project and the DWP proposed project) are totally distinct and each requires separate analysis. This DEIR does not identify the impacts or mitigation associated with those activities in Mono County.

3

Even within the stated scope of the project in Owens Valley the description of the project is incomplete. A more thorough disclosure of project facilities, their locations and operations is required. Surface water diversion facilities, quantities, and water rights must be identified.

Identification and quantification of all aquatic and wetland habitats is incomplete and must be expanded. A description of any changes in maintenance operations that resulted from or will result from implementation of the project must be discussed.

2. ADVERSE IMPACTS TO BIOLOGICAL RESOURCES

Adverse impacts to fish and wildlife resources within the Owens Valley are not fully disclosed in the DEIR. These include: DFG Black Rock and Fish Springs hatcheries; springs, seeps, and ephemeral wetlands; Owens River geomorphology, water quality, fish habitat, and riparian values; fish and riparian habitats in the Owens River reservoirs and tributaries; fish losses in the Owens River tributaries that result from water spreading activities; fish entrained into the Los Angeles aqueduct that resulted from changes in water exports from the Owens Valley; impacts to wildlife species and riparian habitat as a result of fluctuating water levels in reservoirs; and impacts to many wildlife species are not disclosed. Additionally, the impacts to fish and wildlife resources that have occurred in Long Valley and the Mono Basin must be discussed. The cumulative impacts that have occurred as a result of grazing practices since 1970 must be identified.

3. MITIGATION MEASURES

The mitigation for the proposed project is not adequately analyzed, described, or binding in this DEIR. Identified mitigation is not proven to be effective for the range of potential impacts. The Agreement is offered as the main mitigation element of the proposed project. The Agreement acknowledges the potential for negative impacts to vegetation as a result of groundwater pumping, but does not identify the specific measures to be implemented should adverse impacts occur. The mitigation is not fully described, and is unproven and speculative. Also, crucial determinations of potential negative impacts resulting from the project, i.e. the extent of vegetation change, the attributability to groundwater management or surface water management, the significance of the change, the need for mitigation, and the mitigation measures to be implemented, are all postponed to an undetermined date in the future. The determinations themselves will be made without adequate public review of the methods and data used to make those determinations, which is contrary to the intent of CEQA. Section 21061 states that "The purpose of an EIR is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment, to list ways in which the significant effects of such a project might be minimized..." This DEIR does not provide us with the

requisite information. Furthermore, all of the above determinations are subject to dispute resolution. This could conceivably result in significant, permanent negative impacts to vegetation and wildlife habitat continuing to occur as the parties involved dispute the existence and/or rectification of the impact. Finally, the Agreement pro-vides that water supplied to any enhancement/mitigation project initiated since 1981-1982 may be reduced or eliminated at any time if approved by DWP and the County Board of Supervisors. This renders the proposed mitigation unreliable and uncertain. The DEIR is deficient in that it lacks acknowledgement of or a discussion of the potential impacts to resources should all water supplied to mitigation projects be discontinued.

6

The agreement also contains elements of mitigation including implementation of the Lower Owens River project which is the primary fish and wildlife mitigation feature for the project. However, the Lower Owens River project and other mitigation features are not fully described, and furthermore the mitigative features of the proposed Lower Owens River project are unproven. Additionally, as stated in the document, implementation of the Lower Owens River Project and other measures identified on page 1-5 will not occur until after subsequent review as required by CEQA. This is not consistent with CEQA Guideline 15165 which states in part:

Where a phased project is to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project.

Furthermore, DWP is not absolved from exercising their continuing duty to maintain flows necessary to keep fish in good condition in the Owens River downstream from the Los Angeles aqueduct intake dam pursuant to Fish & Game Code Section 5937. Therefore relying on the proposed Lower Owens River project as mitigation for project impacts is erroneous. The Department of Fish & Game is pursuing compliance of Fish & Game Code Section 5937 in the Lower Owens river and a report has been filed with the Inyo County District Attorney's office.

7

In addition, a grazing management program is offered to avoid future significant cumulative impacts. However, the specifics of such a program are absent from the document. Such a program must be fully disclosed and analyzed in the DEIR. Pursuant to Section 15378 of CEQA Guidelines a project is defined as "an activity involving the issuance to a person of a lease...by one or more public agencies". Therefore DWP grazing practices qualify as a project and should be evaluated and disclosed in this DEIR.

4. ALTERNATIVES

We believe a full range of alternatives has not been explored and alternatives are not analyzed adequately to allow a reasoned comparison between the alternatives. We believe that a synthesis of elements from several of the identified alternatives would lead to an environmentally acceptable alternative and accommodate the needs of DWP.

For example, with a minor modification to Alternative 2, which allows for exports of 20,000 AFY over the proposed project, some irrigation and enhancement/mitigation in Owens Valley could be realized and still meet or exceed the proposed project water export level. This would not only result in an environmentally superior alternative, energy consumption would be reduced substantially as a result of decreased pumping. Concomitant with the energy savings associated with the decreased pumping, power generation in the aqueduct facilities would equal or exceed the amount identified in the proposed project. The information provided in the DEIR suggests that energy consumption due to increased ground water pumping since 1970 has increased approximately ten-fold.

5. CUMULATIVE IMPACTS

The DFG finds the DEIR deficient pursuant to CEQA Guideline 15130(b)(3) which states "An EIR shall examine reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project". The DEIR states on page 17-5, "To prescribe mitigation to reduce all of the overall cumulative impacts of Los Angeles' activities in the Owens Valley is beyond the scope of this EIR..." This does not comply with the above guideline. Reasonable options to mitigate for past impacts should be provided not only for the Owens Valley but for Long Valley and the Mono Basin as well.

In addition to the deficiencies in the DEIR noted above, we have numerous concerns with the project as proposed.

As stated above, the mitigation proposed for various impacts to vegetation, wildlife, and fisheries resources consists of the Agreement, the Lower Owens River Project, a salt cedar control program, a grazing management program, and other enhancement/mitigation (E/M) projects completed during the last several years. These mitigation measures are unacceptable for a variety of reasons. First, with the exception of the previously completed E/M projects, specifics of all of the proposed mitigation are as yet undeveloped, untested, and unproven, and are subject to further CEQA review. The appropriateness of using such mitigation to offset impacts associated with this project must be evaluated in this document. This cannot be accomplished until specifics about each E/M project are known. Secondly, the Lower Owens River

Project is offered as the main mitigation for impacts to an unquantified number of springs, seeps, and other wetland areas in the valley. Mitigation of this type is known as out-of-kind, off-site mitigation, which is the least preferred type of mitigation. This type of mitigation is acceptable only when on-site, in-kind mitigation is impossible. The assumption inherent in the proposed mitigation is that on-site, in-kind mitigation for the loss of unique assemblages of species associated with springs and seeps in the valley is not possible. We do not believe the document fully supports this assumption. Third, and of most importance, all of the mitigation offered in the document is subject to substantial revision and, in the worst case, abandonment, if DWP and a majority of the County Board of Supervisors agree. In order to comply with CEQA Sections 21002, 21081, the project must include a commitment by the project sponsors to carry out the mitigation for the life of the impacts associated with the proposed project. Otherwise, significant adverse impacts from the project could occur.

We concur that the environmentally superior alternative is Alternative 1 or the "no project" alternative. Nowhere in the DEIR is this alternative identified as being infeasible. In fact several alternate sources of water for the City of Los Angeles are identified to offset any potential reductions in export of water from the Owens Valley.

Further, it appears that Alternatives 2, 3, and 4 are also "environmentally superior" to the proposed project. As the trustee agency for the fish and wildlife resources of California (Fish & Game Code Section 711.7) the DFG is obligated to recommend adoption of one of the environmentally superior alternatives over the proposed project.

The DFG finds Alternatives 6 and 7 unacceptable as under these alternatives groundwater levels would not be protected. Vegetation dependent on groundwater would be eliminated from some parts of the Valley, causing significant adverse impacts to vegetation, air quality and wildlife habitat.

We find Alternative 5 to be similar to the proposed project. As stated in the DEIR, all the impacts of the proposed project would occur under Alternative 5 and such impacts would be mitigated in the same manner. Thus we cannot concur with Alternative 5 for the same reasons as with the proposed project.

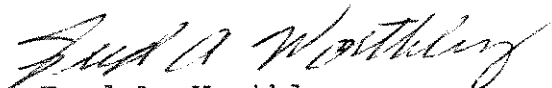
10 Regardless of the alternative selected or the project implemented, Public Resources Code Section 21081.6 requires the Lead Agency to "Adopt a reporting or monitoring program for the changes to the project which it has adopted or made in condition of approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to assure compliance during project implementation".

Until an environmentally acceptable long term solution to water management is implemented, the current provisions of the "interim agreement" should be modified to avoid continuing degradation of these resources and project impacts should be reduced to pre-1970 levels. Current water management practices in the Owens Valley and on Los Angeles owned lands in Mono County are responsible for continuing degradation to fish, wildlife, and riparian resources. The DFG considers this situation to be unacceptable.

11

In conclusion, the DFG finds the DEIR inadequate with regard to scope, impact identification and analysis, alternatives analysis, mitigation, and cumulative impact identification and analysis. Also, all operations and activities directly related and as part of the proposed project constitute violation of Fish and Game Code Section 5937 requiring the release of water below any dam to keep fish in good condition. The project as proposed could result in significant adverse impacts to vegetation, wildlife, and fisheries resources in both Inyo and Mono counties. We recommend that a revised DEIR be circulated for public review after removing the inadequacies and deficiencies identified above and in the specific comments attached.

We appreciate the opportunity to review the draft EIR. If you have any questions please contact me at 330 Golden Shore, Suite 50, Long Beach, California 90802, telephone 213-590-5113.


Fred A. Worthley
Regional Manager
Region 5

Attachment

cc: State Clearinghouse (SCH 89080705)
Resources Agency
ESD



ATTACHMENT
SPECIFIC COMMENTS

Due to the length and complex nature of the DEIR, specific comments will be addressed by major sections within the document.

COMMENTS ON VOLUME I

I. WATER SUPPLY FOR LOS ANGELES

- 12 — This section should contain a discussion of mandatory rationing within DWP's service area. The discussion should include the rationale of why this is or is not a viable option for reducing water consumption in southern California and consequently, adverse impacts to Owens Valley, Long Valley, and Mono Basin ecosystems.

13 — II. WATER MANAGEMENT IN OWENS VALLEY

1. This section should contain a discussion of water conservation within the Owens Valley that will meet the objectives of DWP and enhance the environment. Special consideration should be given to irrigation practices, such as sprinklers, which could reduce the current 5 AF/acre allocation to irrigated lands.

- 14 — 2. Water management activities in the Mono Basin and Long Valley should also be described particularly as they pertain to irrigation of lands for grazing.

III. PROPOSED PROJECT

- 15 — 1. The document states that it is impossible to accurately determine the actual amounts of surface and groundwater that are exported because all of the components of the supply are "commingled". We believe a more accurate description of the additional amount of groundwater and surface water that was made available for export since 1970 can and should be made. In particular, the sources of water that "formerly did not enter the aqueduct system" should be identified and quantified.

2. An evaluation should be made of the cumulative impacts of the Los Angeles owned land that will be released for public and private use, particularly regarding increased water development and use, and growth inducing impacts. This feature of the proposed project is offered as a mitigation measure, in that it is an element of the Agreement, and the Agreement itself is proposed as a "Valley-wide mitigation measure" (Page 1069). The document should state that preliminary inspections by DFG and Army Corps of Engineers of the lands proposed for release indicate that the parcels contain wetland habitats and the potential for endangered plant species.

3. An additional element which should be analyzed in the proposed project is "an increase in the amount of surface water diverted for any reason", not just the "increase in water diverted for export."

4. Habitat types to be monitored in the Agreement do not include surface waters. The vegetation classification on page 53 should be expanded to include aquatic habitats. A monitoring program should be developed for this additional habitat type.

5. "Significant" impact must be defined more explicitly in the Agreement and throughout the document. We believe that any loss of wetland habitat, fish and wildlife or their habitat is significant.

6. Goals for management of rare, threatened and endangered species should be more fully developed. The DWP lands in the Inyo/Mono region contain many unique habitats which support a variety of endemic, rare, and unique species. DWP, as a responsible public agency, should develop management plans for enhancement, preservation, and recovery, of the many valuable resources found on its landholdings. At a minimum, the proposed project should contain provisions for implementing any existing recovery plans for endangered species. The proposed goal of managing endangered species in a manner consistent with State and federal laws implies the minimum amount of attention required by law will be paid to only those species listed by the State or federal government. CEQA Guideline Section 15380 requires that any species meeting the criteria of endangered or threatened must be treated as such, even though it may not be formally listed.

7. The proposed reduction of 2,000 AFY in the volumes of flowing wells and springs identified in the Proposed Project analysis in Table 5-1 result in an unacceptable loss of aquatic and riparian habitat and associated fish and wildlife. These losses are not adequately mitigated. The loss of numerous seeps and springs is identified as a significant adverse impact; the proposed project should result in no further loss of any surface seeps, springs, or artesian wells.

8. Any potential impacts to artesian wells, springs, and seeps, due to proposed pumping on the Bishop Cone should be identified. This should include the identification and description of these surface waters, and a quantification of the losses of flow that could occur.

9. The impacts of the reduction in amount of irrigated acreage of Los Angeles-owned land that took place from the mid-1960s to 1970 should be analyzed. The impacts that resulted from the increase in irrigated acreage after 1970 should be identified. Impacts of both actions should include adverse effects of modified land uses

resulting from the changes, particularly grazing impacts on fish and wildlife habitats on the lands in question and upon other lands which may have received modified management due to the actions. For example, were the same animal unit months present on livestock allotments following the reduction in irrigation? Did adverse impacts occur from increased livestock use such as, trampling and chiseling of stream banks, overutilization of forage, etc.?

23

10. The impacts to aquatic habitats resulting from increased diversion of surface water for export should be thoroughly discussed. The sources, diversion points, and water right authorizing diversion of any such water should be identified in the document.

24

11. The sources, diversion points, and water right authorizing diversion of groundwater recharge facilities should be identified. Impacts to aquatic habitats resulting from recharge activities should be discussed in the document.

25

12. The "minimal" flows provided to the Lower Owens River since 1975 described in Table 5-2 are not necessarily adequate to keep fish in good condition pursuant to Fish and Game Code Section 5937. There is neither justification for adequacy of the flows provided nor quantification of the potential mitigative value of such flows in comparison to the riverine and other aquatic habitats adversely impacted by the project. Justification of the 35 to 50 cfs flows proposed in the Lower Owens River Project and how these flows will "keep fish in good condition" should be provided. The need and adequacy of flushing flows in the Lower Owens River below the Aqueduct intake dam to "keep fish in good condition", to maintain channel competence, and to maintain riparian vegetation, should be discussed. The DFG strongly believes flow studies (IFIM) similar to those currently underway in the Mono Basin and the upper and "middle" Owens River are required to determine flow schedules necessary to maintain viable fishery resources.

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13. Potential impacts to fish and wildlife habitats resulting from the withdrawal of 6 cfs from a new well to supply Big Pine water supply ditches should be discussed.

27

14. The document should discuss the relative recreational and fish and wildlife values of North and South Haiwee Reservoirs including recreational constraints, impacts to threatened and endangered species such as the bald eagle, other wildlife species including waterfowl and shorebirds, impacts of reservoir management activities such as copper sulfate applications and water fluctuations on fish, wildlife, and riparian and wetland habitat, and the impacts of the existing aqueduct intake on North Haiwee Reservoir on fish. The DFG has concerns regarding the potential entrainment of fish into the unscreened aqueduct intake.

15. Table 5-2 lists Buckley Ponds and Saunders Pond as DWP environmental projects initiated from 1970 to 1984. The Buckley Ponds and Saunders Pond were in existence and provided with water as early as 1968. They therefore are part of the preproject conditions and should not be discontinued as environmental projects "implemented subsequent to 1970" as is proposed in Alternatives 1 and 2. The dates of construction and implementation of enhancement projects listed in Table 5-2 should be included.

16. A thorough description of operational changes implemented since 1970 is not provided. Changes in operation in the entire project area, including Long Valley, North and South Haiwee Reservoirs, and the Mono Basin, due to increased flows from the Mono Basin since 1970 which should be discussed include: 1) reservoir fluctuations in all project reservoirs, 2) the magnitude of the increase in flows in the Owens River from East Portal to the Aqueduct intake, 3) a comparison of any chemical applications (copper sulfate, etc.) applied to project waters with preproject applications, 4) changes in maintenance operations such as aquatic weed control activities in canals and ditches, 5) new facilities constructed such as the new aqueduct intake at North Haiwee Reservoir, and the aqueduct filtration plant completed in 1987, 6) any water diversion facilities in surface waters, 7) a description of the continued lining of the Aqueduct identifying the mileage and locations lined. The impacts to fish and wildlife and habitats associated with described changes in operations and facilities should be discussed in appropriate sections of the document. The Department has particular concerns with the effect of DWP's frequent copper sulfate applications to Tinemaha and Haiwee Reservoirs, and infrequent applications to Crowley and Pleasant Valley Reservoirs since 1970. The extent and magnitude of these applications should be discussed. The methods utilized to control aquatic weeds in canals and ditches should be discussed and any impacts identified; proposed changes in these practices and the associated impacts to fish and wildlife resources should also be identified. The document should also reflect that DFG Code Section 1601 requires notification by DWP for any maintenance activities proposed for waters containing public trust resources. The need for chemical applications in project waters to control taste and odor problems should be discussed in light of the existence of the new aqueduct filtration plant.

17. The management procedures on page 5-6 describe the processes by which the Technical and Standing Committees reach decisions and resolve disputes. This procedure circumvents the intent of CEQA, by eliminating the opportunity for public agency involvement on critical issues upon which the project is based. We propose that a more appropriate program for decision-making be the expansion of the Technical Group to include, at a minimum, DFG, U.S. Fish and Wildlife Service, and selected members of the public. Fish and Game Code Section 711.7 states "The fish and wildlife resources

are held in trust for the people of the state by and through the department". Additionally, the DEIR, the Agreement, and the Green Book should contain measurable, quantifiable limits whereby automatic findings of significance will be reached.

31

18. We disagree with the assumption made in the DEIR that a conversion of irrigated lands to other irrigated lands is not significant. A conversion from irrigated pasture, which may provide some wildlife habitat, may be considered wetland habitat, and may contain endangered plant species, to alfalfa is most definitely significant.

32

19. Inconsistencies between the DEIR and the Agreement regarding acreages of classified vegetation types should be corrected. Also, the DEIR states that vegetation has been classified based on the dominant species, but the Agreement and Green Book state that the classification is based on evapotranspiration (ET) rates. This difference should be explained.

33

20. We have major concerns with the inclusion of lands provided with water for wildlife habitat, E/M projects, recreation uses, and pasture, being placed in the same category as alfalfa and livestock uses (Type E vegetation). The DEIR states that under the proposed project (Agreement), lands within the same classification may be converted to other vegetation types within the same classification. Under the proposed project, this would not be considered a significant change. This would allow any lands supplied with water for wildlife habitat or E/M projects to be converted to alfalfa production. We find this conversion to be an unacceptable change. The document is deficient in its lack of discussion of this possibility and the impacts to biological resources should this occur.

34

21. Similarly, the proposed project allows vegetation types to convert to types requiring more water (Type A, requiring the least water, may go to Type E, requiring the most water, but not vice-versa). This allows conversion of Types B, C, and D vegetation, all requiring high groundwater levels, and containing many native wetland and riparian habitats, to be converted to irrigated pasture, alfalfa production, or livestock production. The document should contain a discussion of impacts described in #20 above.

35

22. The document does not fully disclose information regarding areas that contain vegetation of significant environmental value. The DEIR should at least contain a description of those vegetation types and species which the Technical Group will classify as significant. Specific locations need not be provided on management maps, but they should be available to public agencies for adequate review of the proposed project. Once again, mitigation for impacts to these "significant resources" is undetermined, undeveloped, not assured, and is subject to dispute resolution.

This leaves the future of these resources in question.

23. One of the goals of the proposed project is to prevent long-term groundwater mining in the Owens Valley. The means by which this is to be achieved is to limit pumping from any well field over a 20-year period to that amount of water recharged to the same well field over the same period of time. However, the amount of pumping may be increased for other "relevant" reasons. These reasons should be listed. This clause means that under certain circumstances long-term groundwater mining will be allowed. This weakens the intent of the Agreement. The document should describe under what circumstances this would be allowed, and describe the potential impacts associated with its occurrence.

24. We believe that implementation of the proposed Agreement could cause significant adverse impacts to fish and wildlife resources in Inyo and Mono counties. Analysis and interpretation of monitoring results will occur without public review. Determinations of significant impacts will occur without public review. The need for and methods used to mitigate for significant impacts will be determined without public review. Approval of this DEIR allows a project to go forward, prior to impact analysis, findings of significance, the need for mitigation, and identification of appropriate mitigation measures. Furthermore, the proposed project will allow the above analyses to be conducted in-house by the project proponents without required public review. All of the above analyses and findings are subject to dispute and arbitration. And finally, any mitigation measure, once implemented, may be terminated upon agreement of the project proponents. Therefore, the proposed project does not meet the requirements of CEQA which is intended to provide decision makers with sufficient information to make a well-informed choice.

25. Under the proposed project, certain wells will be operated to provide water to E/M projects such as ponds and lakes. The document should state what will occur if such E/M wells are found to be causing drawdown of groundwater sufficient to cause impacts to the vegetation in the vicinity of the well.

26. The DEIR should contain a discussion of the possibility of using groundwater recharge facilities as habitat improvement projects. For example, in previous wet years, water spread south of Black Rock ditch provided habitat for thousands of waterfowl. Waterfowl production in those years increased dramatically. This type of operation would benefit wildlife more than spreading water up higher on the alluvial fans where it would have less value for wildlife. We disagree with the statement in the DEIR that spreading on the Valley floor is non-beneficial, even though such spreading would be highly beneficial to fish and wildlife resources.

40 27. Tables 5-2 and 5-3 list environmental and E/M projects implemented since 1970. The document should describe past DWP maintenance of these projects and provide a discussion of the impacts of those activities on biological resources. For example, Calvert Slough has not had water provided to it in recent years, it is now dry. Water has not been continuously provided to the Lower Owens River Project, resulting in fish kills and reduction in wetland values.

41 28. Specifics of the salt cedar control effort should be provided.

42 IV. ALTERNATIVES

43 1. In Alternative 1 those areas of the Owens Valley which would not revert to those conditions which existed in the preproject period should be identified and quantified. Mitigation to compensate in place, in kind for those areas should be identified.

2. The document states that in order to lessen the impacts of Alternative 1, mitigation measures would have to be implemented, or, in order to avoid the impacts, the environmental and E/M projects would have to continue. However, it then goes on to state that discussion of mitigation associated with Alternative 1 is beyond the scope of the alternative. CEQA requires a discussion of the No Project alternative. CEQA Section 21002.1(b) also requires:

"Each public agency shall mitigate or avoid the significant effects on the environment of projects it approves or carries out whenever it is feasible to do so."

Therefore, if Alternative 1 were chosen, mitigation measures would be required to reduce the impacts to a level of insignificance. They are therefore within the scope of the discussion. The same issue holds true for Alternative 2. Figure 61 and the text should be revised to show that E/M projects and environmental projects would continue under these alternatives.

44 3. With Alternatives 1 and 2 Black Rock and Fish Springs hatcheries would be required to develop their own water supplies. Prior to the increased pumping to supply water to the second aqueduct, the springs at Fish Springs hatchery were only supplemented with pumping during low water years. The DEIR should present data on pumping at Fish Springs Hatchery and the wells in the Fish Springs-Big Pine area from 1960 to 1970. The relationship between pumping at Fish Springs hatchery and spring flows prior to increased water exports from the Owens Valley in 1970 should be identified. Additionally, data showing relationships between increased pumping commencing in 1970 and the ground water levels at Fish Springs should be presented. Similarly, data on pumping at Black Rock hatchery, wells in the Black Rock area, and surface water distribution in the Black Rock area from 1965 to 1980 should be presented. An identification of

the relationship between pumping at Black Rock hatchery and spring flows prior to increased water exports from the Owens Valley in 1970 is required.

4. In Alternative 2 diversion points, quantities of water to be diverted, and the water rights for groundwater recharge should be identified.

5. The environmental impacts associated with Alternative 2 are inadequately described. The "adverse impacts to vegetation, wildlife, recreation, and air quality" due to the reduction in irrigation of Los Angeles-owned lands should be identified and quantified. The gains in fish and wildlife, vegetation, and recreation values resulting from this alternative should be compared to the losses due to DWP environmental projects in a quantifiable manner. The impacts of continued livestock grazing and increased groundwater extraction on lands removed from irrigated agriculture between 1920 and 1970 should be discussed in relation to the slow rate of recovery of these lands to desirable vegetation.

6. In Alternative 5 the goal to "cause no significant decrease (sic) or change in vegetation" is ambiguous. The baseline date for comparison is omitted. This baseline date should be 1970 not 1990.

7. The environmental consequences of Alternative 5 states that this alternative would "protect the environment of the Valley." The degree of protection is not identified. A quantification of vegetation, surface waters, and wetlands which defines "protection" should be provided. No goal for "protection" in comparison to preproject fish and wildlife, their habitats, and recreation is provided in the document. For all of the reasons discussed under "Proposed Project" above, we believe selection of Alternative 5 would result in significant adverse impacts to natural resources. Selection of Alternatives 6 and 7 would also result in significant adverse impacts to biological resources. We would oppose selection of these alternatives.

8. In Alternative 7 the Buckley Pond series should be identified as a continuing environmental project as it is a preproject feature.

9. The alternatives analysis presented is incomplete because it does not contain quantification of critical vegetation types present in the valley prior to 1970, nor does it include a display of acreage of vegetation and habitat types expected as a result of implementation of any of the alternatives. We believe that adequate data exist to make a reasonable estimate of the acreage of each vegetation type present in the valley prior to 1970. This can be inferred from pre-project aerial photos. This same information, in addition to data gathered over the last 20 years,

could be used to generate estimates of the areal extent of vegetation types expected for each alternative. Similarly, this information can be used to generate estimates of wildlife populations based on Habitat Evaluation Procedures or an equivalent method. These estimates should also be displayed for each alternative. The alternatives analysis is also absent a discussion of the relative impacts of each alternative on rare and endangered species.

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10. Without a quantification of habitat types, specifically wetland acres, we are unable to determine if the project will result in the loss of wetland acres or habitat values. The State Legislature has recognized the importance of California's wetlands by passage of Senate Concurrent Resolution 28 which declared the desire to increase wetland habitat acreage by 50% by the year 2000. Therefore, the Fish and Game Commission has adopted its Wetlands Resources Policy which "...opposes...any development or conversion which would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage."

52

11. The DEIR states that under the proposed project 42,000 AFY more of water will be pumped than under the No Project alternative. This represents 6.5% of Los Angeles' currently available water supply. The document also states a goal of 10% reduction in consumption from water conservation measures. It seems reasonable to assume that 6.5% of the water supply could be made up from a variety of other sources, such as conservation, reclamation and MWD supplies. The relative benefits of this water remaining in Owens Valley for wildlife, fisheries, recreation and other qualitative uses for California's residents over export of this amount of water to southern California should be explored. Water management practices affect habitat on well over 220,000 acres, which is a conservative estimate based on the amount of habitat mapped for the project. That does not include Haiwee Reservoirs or any habitat in Long Valley or the Mono Basin.

53

12. In section 6.3.2 the statement "Additional water could be conserved if the existing water conservation program was expanded" should be quantified to describe how much water could be conserved. According to information presented in the document the amount of water export resulting from the proposed project over that of preproject conditions would increase Los Angeles' water supply by less than 6% in the year 2010. This amount of water could be replaced by an effective conservation program.

54

13. The document states on page 6-26 that "The goal of Los Angeles's 1988 water conservation ordinance is to achieve a 10 percent reduction in per capita water consumption by 1993." The

current level of conservation should be presented. Will the 10 percent goal be achieved in 1993?

14. We believe the environmental effects of water conservation in Los Angeles could be significant, not "minimal" as described on page 6-27. No justification is presented to support the minimal effects postulated. The information presented in Conclusions on page 6-26 identifies that "It is difficult to estimate the effectiveness of water conservation programs" and that "An expanded water conservation program would be expected to produce some incremental but presently unquantifiable benefit beyond that attainable with the existing program". There appears to be no sound basis for the conclusion that the effects would be minimal.

15. A thorough description of DWP water rights associated with any surface diversions should be presented. The locations of all surface diversions should be identified.

V. WATER RESOURCES

1. This section fails to acknowledge the effects of the increased flows in the Owens River from East Portal to the Aqueduct intake due to increased exports from the Mono Basin. Increased flows of up to 300 cfs over preproject flows have resulted in the Owens River adjusting to a new channel size. The increased flows, together with up to 400 cfs fluctuations in flow over relatively short periods of time and continuing livestock grazing, have resulted in significant bank erosion, loss of riparian vegetation, and increased sedimentation. All of these have contributed to loss of undercut banks, important for fish cover, and degradation of trout spawning habitat. In the 1960's this portion of the river was far more narrow and consisted of almost continuous undercut banks. Increased erosion since 1970 has resulted in the widening and entrenchment of the river with the formation of vertical, raw banks providing essentially no trout cover. An attempt by the Department of Fish and Game to stabilize bank cutting in the Owens River Wild Trout section below Pleasant Valley Dam in the late 1970's failed because bank erosion was proceeding at such a great rate, upwards of 10 to 15 feet in two years, that willow plantings were unable to establish before being sloughed into the river. Further evidence of this increased erosion is provided by bank riprapping projects conducted independently by the DFG and the County in order to stabilize riverbanks and allow riparian vegetation to reestablish. The County-operated campground at Pleasant Valley was experiencing loss of campsites due to severe bank erosion in the north channel of the river. Furthermore, the numerous vertical banks up to ten feet in height presented a safety risk to recreationists. Inspection of the Owens River from Five Bridges to Tinemaha Reservoir indicates that similar impacts have occurred in this reach of the river as well. As wild trout populations extend throughout the Owens River the habitat quality of the river is of

paramount importance in providing a recreational fishery for trout as well as other game fish species. The document should identify the changes in flow regime since 1970, identify the observed impacts due to these changes, and provide mitigation to eliminate or rectify these adverse impacts.

2. The impacts of the reduction in water to the Owens Lake since 1970 should be expanded to include loss of fish and wildlife habitat for both nongame and game species. For example, a 1978 survey of nesting Western snowy plovers on Owens Lake documented 499 adults and 35 broods (Page and Stenzel 1979). Feeding and brood-rearing are dependent on the springs, seeps, and creeks emptying into the margins of the lake. Surveys in 1988 documented 194 adults and no broods (Page and Bruce 1989). 1990 surveys found 141 adults and 22 broods. The Owens River Delta and other wetlands associated with Owens Lake are important habitats for many wildlife species including waterfowl and shorebirds.

3. Locations of any diversion points, quantities of water diverted, and water rights associated with diversions in the Owens River and tributary streams should be displayed. The quantification of stream lengths dewatered due to the project should be identified. The document should address the adverse impacts of such dewatering to fish, wildlife, and recreational resources.

4. The "small lakes in the center of the Valley from east of Aberdeen to east of Independence" should be identified. Those which were permanent in nature should be identified in the pre-project description. The total acreages of such wetlands should be provided. The impacts of the project to these waters, and the fish and wildlife associated with them, should be identified in the document, and mitigation provided. Ponds such as Calvert Lake have essentially disappeared since 1970, resulting in the total loss of valuable fish, wildlife, and recreational resources.

5. The loss of storage in all project reservoirs due to sediment deposition should be discussed. This should include estimates of sediment transport of and into the Owens River, the origin of the sediment, the effective life of the reservoirs before action to increase storage may be required, and the impacts of the proposed project on sedimentation. All currently available data on channel stability and erosion on stream reaches flowing across DWP property should be included in this analysis and discussion. We understand that an evaluation has been conducted by DWP staff and request this information be included in the DEIR.

6. The operation of canals and ditches should be described including flow regimes, mechanical and chemical maintenance activities, and the fish, wildlife, and recreational values associated with those waters. The Bishop canal, McNally ditches,

and Big Pine canal can provide exceptional angling opportunities depending upon water management. Trout densities in the Bishop canal can approach those of Hot Creek, the region's premier wild trout stream, depending upon vegetative cover available for fish. This aquatic vegetation is subject to complete mechanical removal at various times during the year to facilitate water transport, with devastating results to trout habitat. Chemical control of aquatic vegetation has been explored, although the long-term effects of chemicals is unknown. The value of these waters for fish, wildlife, and recreation should be addressed. Changes in management and operation due to the project should be identified in the document, impacts discussed, and appropriate mitigation offered.

63

7. Figure 9-2 Lakes, Ponds, Reservoirs, Springs and Seeps of Owens Valley does not fully describe those habitats in the Owens Valley. The figure identifies 17 lakes, ponds, reservoirs, springs and seeps. The information should also be expanded to include artesian wells such as Well 368 and "Winterton Well" for example, which provide important fish and wildlife habitat. Billy Lake, Farmers Pond, and the Haiwee Reservoirs should be depicted. Information on the numerous springs and seep areas not described in the document can be obtained from information available in DFG files. The published paper entitled "Springsnails (Gastropoda:Hydrobiidae) of Owens and Amargosa River (Exclusive of Ash Meadows) Drainages, Death Valley System, California-Nevada" by Robert Hershler (Proc. Biol. Soc. Wash., 102(1), 1989, PP. 176-248) describes Owens and Long Valley springs and the unique springsnail species associated with them. The report entitled "Status and Distribution of Speckled Dace (*Rhinichthys osculus*) in the Owens River System Inyo and Mono Counties, California" by Donald Sada, May 1989 describes the survey of 164 sites which could contain dace. The information in both reports should be incorporated into the document to describe preproject conditions, project impacts, and cumulative impacts of past projects. These reports are available at the DFG office in Bishop, 407 W. Line St., Bishop, CA. 93514.

64

8. The impacts to fish and wildlife resources of the greater fluctuations in Tinemaha Reservoir storage since 1970 depicted in Figure 9-3 should be described. Any preproject chemical treatment of the reservoir to reduce taste and odor problems should be described together with a description of the treatment activities since 1970, and under the proposed project. The impacts to wildlife and aquatic resources from such chemical treatments in the reservoir and in downstream waters should be identified and mitigation provided.

65

9. On page 9-22 the statement "...in the areas where water was diverted on the alluvial fans and ponded behind dikes by LADWP, recharge was increased over natural levels" should be expanded to include the locations of such diversions, quantification of the

amounts diverted, and the water rights under which such diversions are authorized. The document should identify those reaches of streams which are impacted by such diversions and the magnitude of impacts to surface waters. Changes to recharge operations since 1970 should be detailed and impacts disclosed. The cumulative impacts of such diversions on fish, wildlife, and recreational resources should be discussed. The Department has concerns that large numbers of fish are lost due to water spreading activities from unscreened diversions.

66

10. The DFG believes that the loss of flows at Black Rock and Little Black Rock Springs and at Fish Springs are the result of increased groundwater extraction beginning in 1970. An analysis should be included in the DEIR to equate spring flows with groundwater management activities from the early to mid-1960s to the present.

67

11. The document fails to disclose DWP chemical applications, in particular copper sulfate, to project reservoirs to reduce taste and odor problems. The past, present, and proposed applications of chemicals should be discussed along with short-term and potential long-term impacts to fish, wildlife, and recreation. The continuing need for such treatments should be discussed in light of the existing aqueduct filtration plant. The document fails to disclose other water quality parameters which are important to fish and wildlife such as water temperature, dissolved oxygen, and nitrogen and sulfur compounds. The lack of adequate maintenance and flushing flows in the lower Owens River below the aqueduct intake have resulted in poor water quality. This is evidenced by the events that occurred in August 1989 when high flows in the lower Owens river resuspended oxygen demanding sediments with disastrous results to fish life. Further evidence of the lack of an appropriate flow regime for the lower Owens River was witnessed in the Fall of 1990 when extremely low flows resulted in severely depressed dissolved oxygen levels and the accompanying adverse impacts to fish.

68

12. In Impact 9-1 we disagree with the statement that " ..it is believed that increased flow rates have not resulted in a significant adverse impact in comparison to preproject condition." Previous comments have documented our ongoing concern with the degradation of aquatic habitat in the Owens River due to increase water export since 1970. We believe mitigation is required for these observed impacts. Even though flows will likely be reduced in the future, degradation due to the existing project has occurred and should be mitigated.

69

13. In Impact 9-2 we believe the specific source(s) of surface diversions that result in the stated "reduced operational spreading during high runoff periods" should be described along with the quantities of surface water diverted.

14. In Impact 9-2 it should be clarified that the 13,100 AFY average flow measured at Keeler Bridge included extremely wet years during which the aqueduct capacity was exceeded. Existing flow data should be utilized to graphically depict the flows at Keeler Bridge on an annual basis so that a reasoned comparison can be made between the preproject and project flow regimes.

15. In Impact 9-3 the "increased flow in Owens River between 1986 and 1990" fails to disclose that the rewatering only involved a portion of the dewatered reach of river below the aqueduct intake. The miles of river left dewatered should be identified. It should be noted that those sections rewatered did not mitigate for those portions left dewatered and does not constitute "in kind, in place" mitigation for loss of surface springs, other wetlands, and other adverse impacts resulting from the project.

16. In Impact 9-5 any sections of the aqueduct that were lined since 1970 should be identified. Any such construction constitutes the lining of a "stream channel" and should be identified as such. The loss of such live channel requires mitigation. The document should identify the cumulative impacts of the dewatering of tributary streams resulting from past, present, and future projects, and provide mitigation to reduce or eliminate adverse impacts.

17. In Impact 9-6 no recognition is made of the detrimental changes to lakes and ponds, such as Calvert Lake. We strongly disagree that "No significant impacts were caused by the changes in the ponds and lakes."

18. In Impact 9-7 the results of the operation of Pleasant Valley and South Haiwee Reservoirs at reduced levels should be discussed. The document should disclose the environmental effects of any changes in operations to include the impacts on fish and wildlife resources, particularly the endangered bald eagle, of the dewatering of South Haiwee Reservoir. Additionally, it appears that dewatering has caused channel incising in the riparian habitat at the upper end of the reservoir which could, over time, cause water table levels to drop enough to cause a reduction in quantity or quality of the riparian habitat. Mitigation to reduce or eliminate adverse impacts should be provided.

19. In Impact 9-13 we disagree that the loss of spring flows at Black Rock and Fish Springs hatcheries has had no significant impacts to water resources. The loss of spring flows has resulted in reduced water supplies and a lessened capacity for fish rearing at the hatcheries. The changes in spring flows at the hatcheries as a result of increased groundwater extraction since 1970 should be mitigated.

20. In Impact 9-16 the identified loss of springs, seeps, and flowing wells documents the direct impacts to these waters

resulting from project groundwater pumping in adjacent well fields. The information presented indicates that a cessation of pumping would restore spring flows in Black Rock and Fish Springs and eliminate the need to pump water for DFG hatchery operations. This is inconsistent with Impact 9-13 which places responsibility for the loss of spring flow in Black Rock and Fish Springs on hatchery pumping. Continuous hatchery pumping was required only as a result of cessation of flow of the two surface springs due to the project. The mitigation provided in the document for the loss of surface spring flows is not adequate.

VI. VEGETATION

77

1. This section should identify those vegetation types which are considered wetland habitats. This is necessary to determine if a net loss in wetland habitat acreage will occur as a result of the proposed project. Based on information provided in the DEIR and in the Green Book, we have determined that the following vegetation types are indicative of wetland habitats: Alkali sink scrub, alkali meadow, alkali seep, rush/sedge meadow, rabbitbrush meadow, Nevada saltbush meadow, alkali playa, transmontane alkali marsh, transmontane freshwater marsh, cottonwood/willow riparian forest, Mojave riparian forest, and Great Basin riparian scrub. This is based on occurrence of wetland indicator species and on requirements for or tolerance of poorly drained, permanently moist soils. Based on information provided in the DEIR, it appears that no less than 84,000 acres of wetlands were mapped in the valley in the 1984-1987 mapping effort. This does not include open water habitats or native pasture which could also contain wetlands. It is unclear whether this includes vegetation associated with E/M projects. This should be clarified. This acreage figure should be compared to conditions prior to 1970 (which could be obtained from aerial photos), and projections made for the proposed project and for each alternative. A discussion of the impacts to wetland habitats as a result of cessation of water provided to E/M projects must be included. A commitment to maintain and possibly increase the amount of wetland habitats in the valley should be included as part of the project.

78

2. Rooted and nonrooted aquatic vegetation such as Nasturtium (Water Cress), Potamogeton (Pondweed), Ranunculus (Buttercup), Myriophyllum (Milfoil), Elodea (Waterweed), Carex (Sedge), Lemna (Duckweed), Azolla (Water Velvet), Juncus (Rush), and the algae Chara (Stonewort) are not considered. These vegetation species provide valuable habitat and food for fish and wildlife, and provide cover and substrate for food organisms utilized by vertebrate fish. In particular, watercress is indicative of water quality which is necessary for unique spring-restricted species such as the springsnail. This type of vegetation is likely more restricted in distribution than any other of the terrestrial and riparian types described. Aquatic vegetation should be included as a "vegetation management type." The probable preproject

distribution of this vegetation type should be compared to current distribution. Mitigation should be provided to protect, preserve, and restore this vegetation type.

3. The DEIR should state sources of information used to determine locations of rare and endangered plants and habitats of special concern other than Natural Diversity Data Base (NDDB) and California Native Plant Society (CNPS) records. NDDB records were never intended to be used as substitutes for field work. We are aware that DWP has extensive records on locations of rare plants. The document is vague in reporting available information on these species. Our intent here is to be assured that all available information regarding locations of rare and endangered plants and habitats has been compiled and will be used. This section should contain a discussion of the effects on these species of the proposed project. A discussion should also be included regarding impacts to these species and habitats should water supply to any E/M project be terminated.

4. The document should discuss any state and federal agency's regulatory authority over wetlands. We disagree with the statement in the DEIR that for the purpose of the EIR, the definitions of wetlands are not required. Many of the proposed actions in the proposed project could involve permitting by the Army Corps of Engineers if dredged or fill material is placed in waters of the United States or their associated wetlands. This could involve construction of canals, ditches, roads, dikes, E/M projects, etc. Any project involving state or federal funding or permitting would be required to be in compliance with state and federal regulations and policies pertaining to wetlands.

5. We disagree with the inclusion of desert sink scrub and alkali playa in Type A vegetation, which is dependent for its water supply solely upon precipitation and runoff. According to the Green Book, Table II.C, both desert sink scrub and alkali playa are classified in Type A based on ET rates. As stated in the Natural Community classification used to classify vegetation (Cheatham and Haller 1975 as modified by DFG, NDDB), this vegetation type is found on soils often with a high water table and salt crust on the surface. Alkali playa is also found on poorly drained soils with high water table and salt crust. These vegetation types are considered wetland habitats. According to the provisions of the agreement, any Type A vegetation may be converted to any other vegetation in Types B, C, D, or E. This means that these two wetland habitat types could be converted to barren land (Type A), any scrub vegetation type (Types A or B) or irrigated agriculture, without being considered a significant impact.

Desert sink scrub and alkali playa, while not extremely diverse or productive vegetation types, nevertheless often support unique plant and animal species by virtue of the extreme fluctuations in

moisture, temperature, and salinity, to which they have adapted. Snowy plovers, for example, nest on alkali playas throughout the Great Basin. We consider the loss of any of these two habitat types significant. The DEIR should present a more thorough description of the importance of the wetland habitats identified in the document, and should discuss the potential impacts to these habitats as a result of implementation of the proposed project.

83

6. We disagree with the statement in the DEIR that vegetation in Types B and C have a relatively high tolerance for drought. All of the vegetation communities in Type C are considered wetland habitats, and all are found in areas with high soil moisture. Alkali seep in particular is found in permanently moist or wet soils. All of these vegetation types could be permanently affected by a prolonged drying of the soil. Once again, we are concerned that the proposed project allows for conversion of these wetland habitats to, at best, other wetland habitat communities, or, worse yet, to irrigated agriculture or other non-native vegetation types. Any loss of these wetland habitats is significant. The document should provide a discussion of these habitats and impacts to them as described in #5 above.

84

7. To summarize concerns discussed in #5 and #6 above, the proposed project could potentially result in the conversion, modification, or loss of 84,000 acres of wetlands. Unless the DEIR, the Agreement, and the Green Book are substantially modified to prevent losses of any wetland habitat, we cannot concur with the proposed project.

85

8. The DEIR describes several studies which have attempted to quantify vegetation changes as a result of water gathering activities since 1970. One study estimated that 25,000 acres of vegetation had been affected. The USGS study which found that ET from groundwater decreased by 40,000 AFY since 1970, should be converted, using Average ET displayed in Table II.C. of the Green Book, to vegetation acreage lost or affected. Also, any analysis of acreage of vegetation lost or affected contained in the Jacques report referred to on Page 10-47 should be included. This information is crucial in order to make a decision whether the proposed project is capable of mitigating adverse impacts to the environment as a result of water gathering activities by DWP since 1970.

86

9. Impact 10-1 should discuss impacts to fish and wildlife resources as a result of unreliable water supplies in the Owens River during dry years. This section implies that water in the river has been continuous since implementation of the Lower Owens River Project. This section should also contain a discussion of any impacts to vegetation which have occurred as a result of pumping to supply E/M wells.

10. Impact 10-5 states that environmental projects implemented between 1970 and 1990 resulted in an increase of 491 acres of surface water and several hundred acres of associated riparian habitat. This is not substantiated elsewhere in the document. Additionally, the same section states that some of these projects involved restoration of lakes and ponds. These bodies of water cannot be counted as net benefits, since they probably existed prior to DWP activities.

11. Mitigation Measure 10-6 offers a salt cedar eradication program will be "started". No commitment is made to actually eradicate salt cedar. This mitigation measure is inadequate as written.

12. The analysis of percentage of acreage which may have experienced impacts from pumping is misleading. First, 11,700 acres are offered as the amount of vegetation which may have been affected. Yet elsewhere in the document estimates ranging from 25,000 to over 40,000 acres are made. Second, this 11,700 acres is compared to total mapped acreage in the valley, revealing that 5% of total valley vegetation may have been affected. Using these same figures, it would be more meaningful to show that 20% of vegetation which could be affected by groundwater pumping may have been altered (11,700 acres out of 58,000 acres). However, we believe that the acreage of vegetation which could be affected by pumping is actually closer to 84,000 acres. If 25,000-40,000 acres of vegetation may have been affected, the percentage is closer to 30%-50%.

13. Where was the 1,015 acre figure in Impact 10-11 derived? Mitigation measure 10-11 offers only 80 acres of native vegetation as mitigation for loss of 655 acres of vegetation. The remaining 575 acres will be alfalfa or pasture. We do not consider alfalfa or irrigated pasture to be mitigation for loss of native species. Furthermore, upland revegetation techniques in the Owens Valley are undeveloped and untested.

14. Impact 10-12 does not discuss the impacts to Owens Valley checkerbloom, *Sidalcea covillei*, a state Endangered species, which was affected.

15. We have numerous concerns with mitigation measure 10-14. DFG fish stocking efforts cannot even reasonably be expected to serve as mitigation for loss of Fish Springs and Big Blackrock Springs. The pond associated with DWP well 349 does not provide the same type of habitat as springflow. A research project at Hines Spring provides no assurance of success of the mitigation efforts and can therefore not be considered a valid mitigation measure. Pumping near Reinhackle Spring, and other spring and wetland habitats, should be off-limits, since it is already known that pumping can affect springflow. We have already discussed problems with using the Lower Owens River as mitigation for all wetland, wildlife and riparian impacts.

93

16. Impact 10-15 does not address impacts to biological resources occurring from the period 1970-1984. Even assuming that the Agreement was capable of providing for long-term management of resources at the 1984-1987 level (which we dispute) that does not take into account impacts for the preceding 14 years. Once isolated populations of invertebrates, fish, or plant species are lost at a spring or seep, that population is gone forever. Reproductive capabilities of more mobile species that could have reproduced had conditions been favorable are lost (waterfowl for example). This DEIR completely ignores this point.

94

17. Impact 10-18 should be quantified. We also disagree with the statement on Page 10-67 that the cause of loss of vegetation is not the result of the project. Wildfire severity can be directly linked to water content of the plant, which could be attributed groundwater pumping.

95

18. On page 10-30, Tributary Streams, the identification of waters which were diverted prior to 1970 should include those in Mono County as well, including the Owens River Gorge. The cumulative impacts of these diverted reaches should be evaluated. In addition, waters which are only partially diverted, either in volume or temporally, should be identified, and impacts to fish, wildlife, and recreational resources discussed and mitigated. The actual mileage of all streams impacted should be identified rather than only expressing the value as a percentage.

96

19. The impacts of increased surface water diversions since 1970, wherever they might occur, on aquatic and riparian habitats to provide water to irrigated lands should be discussed. For example, projects which diverted portions of Shepherd and Sawmill Creeks should be described, adverse impacts to natural and recreational resources identified, and mitigation provided.

97

20. The document states that due to high runoff in the period 1982-1986, vegetation recovered during that period to its greatest vigor since 1970. This is used as justification to manage vegetation for the 1984-1987 conditions. However, the document repeatedly states that not enough information is available to determine extent of vegetation prior to 1970. How can the determination be made that vegetation approximated 1970 conditions when 1970 conditions are unknown?

98

21. In Impact 10-5 the loss of aquatic vegetation from surface waters which were adversely impacted since 1970 is a significant adverse impact on vegetation which should be identified and mitigated.

99

22. In Impact 10-10 the means by which canal maintenance will be performed without "significant impacts to vegetation" should be identified. Mechanical and/or chemical control is currently practiced. Such practices have significant impacts on both rooted

aquatic vegetation and bankside vegetation. The use of chemicals has resulted in at least one fish kill incident which was prosecuted by the DFG. The means by which canals and ditches will be maintained while providing continued fish and wildlife habitat should be described.

23. In Mitigation Measures 10-14 it is acknowledged that "...not all springs and associated riparian and meadow vegetation will receive on-site mitigation..." We believe that the proposed lower Owens Project is insufficient mitigation to compensate for the identified, and unidentified, losses of surface flow. Groundwater should be managed in a manner which restores those fish and wildlife habitats adversely impacted by increased water extraction from the Owens River drainage and the Mono Basin. The DFG disagrees with the statement that "No on-site mitigation will be implemented at Fish Springs and Big Blackrock Springs; however, the CDFG fish hatcheries at Black Rock and Fish Springs serve as mitigation of a compensatory nature by producing fish that are stocked throughout Inyo County". The loss of those springs should be mitigated. The catchable trout program conducted by the DFG is no mitigation for the loss of spring flows due to increased groundwater extraction.

24. In Impact 10-15 the few identified springs offered for mitigation monitoring are not adequate to compensate for the losses of spring flow resulting from the project.

25. Regardless of the alternative selected the DFG believes that the drought recovery policy must be changed to only allow pumping after the soil moisture recovers to that necessary to support the vegetation that existed at least at the 1984-1987 conditions.

VII. WILDLIFE

1. An inordinate amount of basic biology is presented in this section which obscures the evaluation. An adequate evaluation for the DEIR should include a thorough description of the fish and wildlife resources in the entire project area, the use of existing information to identify and quantify preproject habitats, a complete description of the changes in those habitats with concomitant impacts to fish and wildlife habitats and populations since 1970, and mitigation to eliminate or reduce the adverse impacts. This section is deficient in identifying fish and wildlife habitats within the project area. This section should also contain a comparison of pre and post project wildlife populations utilizing a methodology such as the Habitat Evaluation Procedure (HEP) or equivalent to relate habitats to animal populations.

2. Figure 11-1 indicates that riparian vegetation is of paramount importance to animal species richness. Proposed mitigation should

therefore return riparian habitat values in the project area to as close as possible to preproject conditions. An analysis of this type should have been performed by animal species and habitat type to determine observed impacts to wildlife populations from adverse impacts to various habitat types.

3. The NDDDB should also have been consulted for specific information regarding threatened and endangered animals and habitats. As stated earlier, such information is not meant to substitute for field surveys, but provides an indication of potential species and habitats.

4. The Preproject Setting and Present Setting sections are inadequate in their discussion of endangered species. These sections should include a discussion of all species listed on Table 11-5, plus Mohave ground squirrel and Least Bell's vireo. The Mohave ground squirrel is a state Threatened species which could be affected by ancillary facilities and aqueduct maintenance activities from Haiwee south. The Least Bell's vireo is a state and federal Endangered species which was observed in riparian habitat along the Owens River and its tributaries in the 1970's. This species has not been observed in recent years, however, no intense surveys for the species have been conducted. Table 11-5 should be corrected to show that California bighorn sheep are a state Threatened species. These sections should also contain discussions of critical seasonal habitats such as winter wintering areas, calving and fawning areas, roosting and nesting areas, migration corridors, etc. For example, Round Valley is a critical winter range for several thousand migratory mule deer of the Buttermilk and Sherwin Grade herds. The section on small animals should be revised to include a discussion of the importance of small mammals as prey for a variety of raptors and furbearers.

5. The discussion of tule elk should be updated. Tule elk in the valley have been managed according to Legislative mandate at a number not to exceed 490 animals since 1977. Hunts were held in 1989 and 1990. The Whitney herd should be added to Table 11-2, and the discussion on page 11-21 should be corrected to read that six herds inhabit the valley.

6. Table 11-6 should be updated to include data from the August 1990 aerial survey:

7. The Present Setting section should contain a discussion of mule deer, and the importance of riparian habitat to the Owens Valley Deer Herd. The Monache, Goodale, Buttermilk, Sherwin Grade, Casa Diablo, and Mono Lake migratory deer herds also use DWP lands for important wintering, migratory and holding areas.

8. The statement on Page 11-36 that no adverse impact to the welfare of any endangered, threatened or fully protected species

is expected as a result of the project is unsubstantiated. At least one species, the Least Bell's vireo, has been completely omitted from the document, and this species, which is dependent on riparian habitat for nesting, may have been eliminated from the valley since the mid-1970's. Additionally, the uncertain, unbinding nature of the vegetation management principles and mitigation measures described in the Agreement leave the future of critical habitats for many of these species in question. The document is misleading in this regard.

111

9. We disagree with the statement on Page 11-39 that impacts to wildlife due to the second barrel must be described collectively. Historical information on wildlife species (museum records, research reports, individual observations) could be combined with historical vegetation data (aerial photos) to make reasonable projections of habitat capability for various species. Population models have been developed for many species which can be used to predict effects of future projects; these could be used or developed for the purposes of this document. For example, the DFG has aerial waterfowl survey data from a series of wet years, these could be used to predict waterfowl habitat capability and production estimates for various surface water conditions. We believe the entire wildlife section should be rewritten to contain more quantitative information.

112

10. Mitigation measure 11-1 provides no assurance that impacts to wildlife populations will be fully mitigated. More quantifiable mitigation measures need to be developed.

113

11. We disagree with the statement on Page 11-41 that the Lower Owens River project will provide benefits to wildlife that exceed the impact during the last two decades. This is unsubstantiated in the document. The document repeatedly asserts that it is impossible to determine preproject wildlife populations, and that it is impossible to quantify impacts to wildlife. How then can the assertion be made that benefits from implementation of a mitigation measure will exceed project impacts. Furthermore, the Lower Owens River Project does not mitigate for the impacts on springs. Habitat types along a river are very different from those found at springs. Springs host a completely different assemblage of invertebrates, plants, fish, and wildlife species than the riparian and marsh habitats along the river. And lastly, since none of the mitigation measures, including the Lower Owens River Project, are binding in perpetuity, their value as mitigation is questionable.

114

12. Aquatic springsnails of the family Hydrobiidae of (Gastropoda) should be added to Appendix C. This list should be expanded to include species present in Mono Basin and Long Valley. A brine fly and brine shrimp still inhabit Owens Lake. The list apparently identifies the abundance and occurrence of species under postproject conditions. A similar list should be developed

utilizing a HEP or other related procedure to identify the preproject status of animal populations. Special Animals of California should also be identified. A checklist of all listed and sensitive species in California is attached with these comments and additional copies are available at the DFG's Bishop Office at 407 W. Line St., Bishop, Calif. 93514.

13. Smallmouth bass, bullhead, and cutthroat trout should be added to Table 11-1 as introduced game species.

14. An inadequate description of fish resources is presented. A large data base exists which quantitatively describes the fish resources of project waters including canals and drains. These data should be included to document the rich and valuable fisheries resources which are at risk due to ongoing and potential project impacts. In addition creel survey data are available to document the use of various project waters by the public. This information should be included to document the recreational resource value of the project area. The DFG annually stocks nearly 3/4 million catchable trout in Inyo County alone. Another 1.2 million are stocked in Mono County annually. The catchable trout program alone generates over 3 million angler hours each year in Inyo and Mono Counties. The recreational fisheries associated with Crowley lake are additional. Fish stocking information and the recreation supported by the stocking should be included in the DEIR to document the recreational values of project waters. All of the above information is available from the Bishop office of the DFG.

15. The importance of hunting, wildlife observation and photography has not been addressed. Tule elk, mule deer, quail, chukar, dove, waterfowl, and sage grouse hunting take place on DWP lands. Many recreationists come to the Owens Valley from southern California and elsewhere to observe and photograph these and other wildlife species. They purchase gasoline, food, lodging, and sporting goods from local merchants. Long-term data on upland game hunter days/county are available from DFG.

16. The document is deficient in its treatment of threatened and endangered fish. Agency Recovery Plan direction should be presented along with proposed commitments for implementation of recovery efforts and for actions to prevent the need for current special concern or candidate species to become listed.

17. The statement in section 11.3, Present Setting, on page 11-27 "Overall, there is no significant difference between present wildlife populations in Owens Valley and preproject populations" is not supported in the document. The document does not describe the availability of preproject fish and wildlife information. If such quantitative information is available, it should be utilized. If not available a HEP or related procedure should be utilized to describe preproject resources.

18. Section 11.4, Impacts and Mitigation Measures, is deficient in the identification of impacts and proposed mitigation. This section should list as impacts many of the identified and observed impacts that are listed in Chapter 9, Water Resources. This section should identify the impacts to fish resources of altered Owens River flows, reduction in flows to Owens Lake, stream habitat altered due to aqueduct lining, loss of fish habitats in ponds and lakes, impacts due to surface diversions (including the loss of fish through unscreened diversions), increased fluctuations in groundwater levels and effects on surface waters, adverse impacts to DFG hatchery operations, adverse impacts to springs, seeps and flowing wells, impacts due to the application of chemicals to project reservoirs, mechanical and chemical applications for canal and ditch maintenance, and others previously mentioned. In addition, the extent of the impacts should be expanded to include Long Valley and Mono Basin waters. The Department believes the DWP-County Agreement does not adequately eliminate, reduce, or compensate for the variety and magnitude of adverse impacts as result of the project.

VIII. AIR QUALITY

1. For all the reasons discussed in various sections above regarding the scope of this project, and cumulative impacts, we believe that impacts to Owens Lake and its natural resources should be included in this document. This section should describe the important wetland habitats remaining on the lake, and their importance to wildlife species such as shorebirds, waterfowl, and other water associated wildlife species. The discussion should include impacts to these species and habitats which could occur as a result of implementing the proposed "mitigation" for air quality standards on the lake.

IX. ENERGY

1. This section does not disclose the amount of energy required to pump preproject groundwater. This power use should be compared to the estimated energy use for the proposed project and the difference converted to barrels of oil and cost savings which would be realized by returning to pre-1970 pumping levels. Because the second aqueduct exists and can be filled with various water sources, the potential power generation from aqueduct facilities under each alternative should be presented.

X. LAND USE AND ECONOMIC DEVELOPMENT

1. This section should present information on the recreational use of Los Angeles lands and facilities by the public. The Bishop office of the DFG has information available, as does Los Angeles Department of Recreation and Parks, and Inyo County. The magnitude of recreational use in the area including Inyo National Forest and Bureau of Land Management lands should be presented.

124

2. This section should disclose the number of ranch lessees currently grazing DWP lands, the number of animal unit months utilized and the gross value of ranching operations. Similar information should be provided for other land uses such as agriculture. This information should then be compared to gross income to the local economy which is attributable to recreation in the project area, including DWP lands and operations in the Mono Basin, Long Valley, and Owens Valley.

125

XI. ANCILLARY FACILITIES

1. Concerns regarding details of the water recharge operations have been expressed previously. However, further information should be provided to identify the source(s) and quantities of water to be utilized in the proposed improvements in the Laws and Big Pine areas. Impacts to aquatic and riparian resources from any increased diversions should be identified and mitigation provided.

126

2. This section should describe the vegetation types in the immediate vicinity of proposed new well sites. We believe that restrictions should be placed on siting new wells in areas containing certain vegetation types which are sensitive to groundwater levels.

127

COMMENTS ON VOLUME II

1. Page B-18 is missing, rendering the document incomplete.

128

2. The agreement provision which grants Los Angeles the unilateral authority to turn on a well for the purposes of increasing the soil moisture appears to be inconsistent with the goals of the Agreement. This seems to contradict the spirit of cooperative management of water resources by the City of Los Angeles and the County.

129

3. Most of our concerns with the ability of the Agreement to provide protection to the valley's resources have been addressed in various sections above. However, to summarize, we believe the Agreement provides no assurance of protection from significant impacts for four main reasons. First, all of the decisions and findings which should be reviewed by the public pursuant to CEQA, are postponed until the future, with no public review required. We are asked to trust the project proponents in their determinations of significance, attributability to groundwater or surface water management practices, necessity for mitigation, development of the mitigation, and the implementation of mitigation measures. Each of these points is subject to dispute

resolution between the two parties to the Agreement. Secondly, the mitigations proposed are experimental and as yet undeveloped. Third, once a mitigation measure is implemented, the Agreement provides no assurance that it will be maintained for the life of the project. Any mitigation project may be terminated if DWP and the County Board of Supervisors agree. And fourth, the Agreement allows conversion of wetland habitat types both to other wetland vegetation types, to native upland vegetation types, or to non-native or agricultural use. We cannot concur with a project which would allow this to take place.

4. We believe the DEIR is deficient in its analysis of the Agreement, and the potential impacts of its implementation on biological resources.

5. Lower Owens River: The DFG, through the Wildlife Conservation Board (WCB), is interested in funding habitat improvement/restoration work statewide. WCB funds are usually used for on the ground habitat work only. Funding for the construction or operation of the proposed pumpback station is not an appropriate use of WCB monies nor does the DFG believe that the WCB should fund the mitigation obligations of the DWP.

The 35 cfs given as the seasonal average flow for the Lower Owens River is arbitrarily conceived and does not necessarily relate to the needs of the recovering fishery. Long term flow schedules for the River should be determined after the completion of an instream flow study similar to those now occurring in the Mono Basin and Upper Owens River. Incorporating flow schedules into the management plan as needed to 'maintain a healthy and productive warm water fishery in the Lower Owens River' by January 1, 1992 will necessitate the immediate implementation of instream flow studies.

Our understanding of the proposed Lower Owens River Project includes creation of nearly 1,000 acres of wetlands at Black Rock and at the Owens Delta. These features of the project should be included in the Agreement as integral parts of the project.

We believe that the Lower Owens River should be rewatered in its entirety. Furthermore, as stated earlier, DWP is not absolved from exercising their continuing duty to maintain flows necessary to keep fish in good condition in the Owens River downstream from the Los Angeles aqueduct intake dam pursuant to Fish & Game Code Section 5937.

6. Page C-15 should be expanded to include salamanders under the Amphibians heading.

7. Page C-18 should be expanded to include the Family Hydrobiidae under the Class Gastropoda.

COMMENTS ON THE GREEN BOOK

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1. The terms "significant" and "significant effect on the environment" must be explicitly defined.

138

2. The determination of measurability depends on a number of factors indicating even a small documentable change. Clarification is needed on this issue. Does this imply a statistically significant measurable change is necessary to trigger a determination of measurability?

139

3. "Safe yield" in the Owens valley is defined as the amount of groundwater that can be extracted without any adverse effect on the environment or other uses of groundwater. The DFG believes safe yield should be based on a water budget that includes maintenance of fish and wildlife habitats and recreational resources at the preproject level.

140

4. Generally, the policies and guidelines of the Green Book are too subjective and vague to provide the requisite level of protection the habitats in the Owens Valley deserve.

END OF COMMENTS

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RESPONSES TO COMMENTS LETTER A4

RESPONSE A4-1

The proposed project is consistent with the requirements for content of program EIRs under CEQA. Please refer to response to master comment PD-3, which addresses this issue.

RESPONSE A4-2

Please refer to response to master comment PD-3 which addresses the basis of exclusion of LADWP operations in Mono Basin from the project description.

RESPONSE A4-3

It is believed that the project description contained in the Draft EIR as represented by the description in Chapter 5, Proposed Project, and the text presented in the setting sections of Chapters 8 through 16 are adequate for the environmental review, and consistent with CEQA.

RESPONSE A4-4

The findings of significance for vegetation and wildlife presented in the Draft EIR and, as clarified in this Final EIR, are based on the best available information, including data from the California Department of Fish and Game. There is no documented evidence that since 1970 the project has had any significant adverse effect on local fish and wildlife populations. No such evidence has been submitted by DFG or others during the public review period for the Draft EIR. Please refer to response to master comment PD-3 which addresses the exclusion of the Mono Basin from the project description.

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 A4-5

The contention that mitigation for the proposed project is not adequately analyzed, described, or binding is not substantiated. Mitigation measures are described for impacts which have occurred between 1970 and 1990, and those impacts which could occur under the Agreement. Please refer to responses to master comments MT-1 and MT-2, which address past mitigation efforts; MT-4, which addresses the issue of continuation of mitigation projects contained in the Agreement; and MT-8, which addresses mitigation options.

RESPONSE A4-6

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 A4-7

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 A4-8

This comment expresses a personal opinion concerning the content of the Draft EIR. Please refer to master comment AL-1.

RESPONSE A4-9

Please refer to responses to master comments MT-3, relating to various forms of mitigation available under CEQA and MT-5, concerning mitigation guidelines for cumulative impacts under CEQA.

RESPONSE A4-10

A mitigation monitoring and reporting program will be adopted for the project at the appropriate time in the environmental review (upon adoption of findings by the lead agency), and thus is not contained in the Draft EIR. The remainder of this comment is an expression of opinion. The comment is noted; no further response is required.

RESPONSE A4-11

This comment is a summation of the comments presented in A4-1 through A4-10 above. Each comment has been responded to. No further response is required.

RESPONSE A4-12

Please refer to response to master comment AL-3 for an update on water conservation measures in Los Angeles.

RESPONSE A4-13

Please refer to the Agreement (page B21, lines 7 through 11), which states the policy for commitment of water for use in Owens Valley. Existing policies encourage more efficient use of irrigation supplies. These irrigation practices can be modified to promote more efficient use of water as long as the practice is consistent with the policy in the Agreement.

Water management practices in Mono Basin and Long Valley are outside of the scope of this Draft EIR as described in response to master comment PD-3.

RESPONSE A4-14

Chapter 5, Proposed Project, page 5-17, paragraph 4, first sentence, states that ". . . it is difficult to accurately quantify the amount of additional surface water diversions that are actually exported, because all of the components of supply are commingled in the aqueduct system." The actual amount of export varies depending on the type of hydrologic year. Figures 5-1, 5-2 and 5-3 illustrate these relationships. Please refer to response to master comment WA-3 which discusses commingling of waters.

RESPONSE A4-15

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

RESPONSE A4-16

Surface water which might be diverted "for any reason" other than export is already accounted for in Figures 5-1 through 5-3 in the components related to "Water used on Los Angeles-owned land" and "Other Owens Valley Uses and Losses." No further distinction is required.

RESPONSE A4-17

Under the Agreement, Los Angeles-owned lands that are supplied with water (including recreation areas, wildlife habitats, and enhancement/mitigation projects) will be managed as Type E vegetation. Type E areas are to receive water so that the water related uses of such lands that were made during the 1981-82 or subsequent runoff years will continue to be made. (Submerged aquatic vegetation was not inventoried during the 1984-87 vegetation inventory and is not included in the Type E classification.)

Riparian, marsh, meadow or any other vegetation surrounding or emerging from these bodies of water were mapped as plant communities at the time of the vegetation inventory and classified as Type C, D, or E vegetation accordingly. Under the Agreement, surface water will be managed to avoid causing significant decreases in live vegetation cover, to prevent a change from one management type to a management type that precedes it alphabetically, and to avoid other significant effects on the environment. If DFG believes that a change in LADWP's surface water

management has or will cause such a decrease or change in vegetation, or a significant effect on the environment, the issue can be brought to the attention of the Technical Group and/or any other available remedy pursued.

Types C and D vegetation will be monitored as described in the Green Book, Section I.B and Section III. In addition, procedures for management and monitoring vegetation of significant environmental value are described in the Green Book Section I.D.1 (page 31).

RESPONSE A4-18

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 A4-19

Please refer to response to master comment VE-6 for a detailed discussion of LADWP's on-going program for management of rare and/or endangered plant species on Los Angeles-owned lands. Management of wildlife species will continue to comply with State and federal laws. Also, please refer to master comment WL-6 concerning LADWP's program for monitoring wildlife.

RESPONSE A4-20

The estimates of water usage contained in Table 5-1 could vary as indicated in Footnote 1 at the bottom of Table 5-1. The actual amount of water from flowing wells and springs could vary in any one year depending on the amount of pumping. Under the provisions of the Agreement the vegetation and habitat of springs and seeps are protected as described in responses to master comments PD-5 and WA-4, pertaining to Reinhackle Spring.

RESPONSE A4-21

For a detailed discussion of any proposed pumping on the Bishop Cone, please refer to response to master comment PD-13 and Appendix A-4, which contains legal interpretations of the Chandler and Hillside Decrees.

RESPONSE A4-22

The significant effects of changes in irrigated acreage between pre- and post-1970 are discussed in detail in Chapter 10, Vegetation, and Chapter 14, Land Use and Economic Development. As it relates to livestock production, it was concluded that a firm water supply contributed to a stabilization of production. Please refer to Chapter 17, CEQA Considerations, pages 17-5 and 17-6. Also see response to master comment PD-14 and Appendix B-1 for an elaboration on grazing management.

RESPONSE A4-23

Please refer to response A4-17 for a discussion of aquatic habitats. The facilities for surface water diversion, either for export of water or groundwater recharge, were built long before the construction of the second aqueduct, in some cases by entities other than the City of Los Angeles. No new diversion facilities were constructed in preparation for, or as part of, the second aqueduct. Also see discussion of water resource impacts 9-1 through 9-9 regarding surface water.

RESPONSE A4-24

Please see response to comment A4-23 above.

RESPONSE A4-25

Please refer to description of Lower Owens River Project in response to master comment MT-6. The future operation and expansion of the project will be the subject of a plan to be developed by LADWP, Inyo County and DFG. The legal issue raised in this comment is outside the scope of this EIR.

RESPONSE A4-26

The new well referenced in this comment would be constructed after the community of Big Pine makes a decision on the Big Pine Ditch project. Should this well be constructed, it will be subject to management provisions described in the Agreement. Please see responses to master comments PD-4 and AF-2.

RESPONSE A4-27

There have been no changes in the operation of Haiwee Reservoir as part of the project. Please refer to response to master comment PD-16 for a discussion of Haiwee Reservoirs. If changes or new planning and design considerations are developed for North and South Haiwee Reservoirs, an appropriate environmental review will be conducted.

RESPONSE A4-28

The Buckley Ponds and Saunders Pond were in existence in some form prior to 1970; however, a habitat management plan providing a firm water supply was developed in 1975 to ensure viable fish and wildlife habitat, as described in Chapter 5, Proposed Project, Table 5-2. LADWP's water management activities during the period 1970 to 1990 at both the Buckley Ponds and Saunders Pond have been classified as environmental projects. This classification will continue.

RESPONSE A4-29

Chemical treatment practices discussed in this comment commenced prior to the start of this project and have not been altered as a result of the project. The legal issue raised is outside the scope of this EIR.

RESPONSE A4-30

The procedures under the Agreement and Green Book do not circumvent CEQA. Please refer to response to comment A4-17, and response to master comment PD-7 for a discussion of monitoring.

RESPONSE A4-31

Comment noted.

RESPONSE A4-32

Between the publication of the Agreement in 1989 and the Draft EIR in 1990, the acreages for vegetation types were refined. The numbers shown in the Draft EIR reflect the current numbers. The Agreement will be corrected. The classification of vegetation into management types (i.e. Types A, B, C, D or E) is based on ET. The classification of vegetation into vegetation communities is based on dominant species.

RESPONSE A4-33

Please refer to response to master comment VE-1 for an explanation of vegetation changes allowed under the Agreement.

RESPONSE A4-34

Please refer to response to master comment VE-1 for an explanation of vegetation change allowed under the Agreement.

RESPONSE A4-35

The Draft EIR does disclose information on those vegetation types and species that the Technical Group will classify as significant. In Chapter 10, Vegetation, this information is provided on page 10-19, "Plant and Habitats of Concern"; standards of significance are presented in pages 10-47 and 10-49. The Owens Valley is a very large project area. To identify the parameters that will be evaluated/monitored at individual locations throughout the valley is not possible in the Draft EIR, and is not necessary to reach the conclusions of significance that are needed under CEQA. The monitoring program of the Green Book is one of the most comprehensive in the State of California. Please, also refer to response to master comment PD-7 for additional discussion of monitoring requirements under the Green Book.

RESPONSE A4-36

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

RESPONSE A4-37

Please refer to responses to master comments PD-7, pertaining to monitoring provided under the Green Book, and MT-4 regarding the continuance of mitigation measures of the Agreement.

RESPONSE A4-38

All wells, including E/M wells, will be managed in accordance with the Agreement and Green Book. Please refer to response to master comment MT-4 regarding continuance of E/M projects.

RESPONSE A4-39

Basin recharge is the primary goal of the groundwater recharge facilities. The feasibility of using these facilities as a habitat improvement project is constrained by the fact that their use, by definition, will only occur during periods of sufficiently high runoff. This variability of use makes the feasibility of using groundwater recharge facilities as long-term wildlife habitat questionable.

RESPONSE A4-40

Calvert Slough is supplied by flow in Taboose Creek, and from two wells which pump into Taboose Creek. During the current drought, flows in Taboose Creek have been inadequate to supply Calvert Slough. In addition, operation of the two wells has been discontinued under the provisions of the Agreement to protect vegetation. Due to the precipitation in March 1991, some water has recently entered Calvert Slough from Taboose Creek.

In 1986 water was supplied to the lower Owens River. With the onset of the drought, flows to the Lower Owens River Project were reduced as a result of certain E/M wells being turned off in accordance with the Agreement to protect vegetation. Please see Annual Pumping Programs from 1987/88 and 1991/92 on file with LADWP and the Inyo County Water Department concerning the flow changes in the lower Owens River.

RESPONSE A4-41

Please refer to response to master comment VE-7 for a discussion of saltcedar control.

RESPONSES A4-42 THROUGH A4-48

The purpose of the alternatives analysis is to provide a comparison of effects to that of the proposed project. This and subsequent comments pertaining to alternatives presumes that the scope of analysis of alternatives should equal or, in some cases, exceed that required for the proposed project. This is not the case. CEQA does not require mitigation for every possible hypothetical effect of alternatives. Should an alternative be chosen as the new proposed project, then a new environmental review would be required under CEQA, with an appropriate scope of analysis developed, and the requirement for identification of mitigation would apply. Please refer to response to master comment MT-3 for a discussion of mitigation requirements of CEQA. Also see responses to master comments AL-1 through AL-4.

RESPONSE A4-49

Please see response to A4-28 above.

RESPONSE A4-50

Please refer to responses to comments EA-1 (pre-project conditions) and WL-5 (HEP analysis).

RESPONSE A4-51

All groundwater-dependent vegetation is mapped and classified under the Agreement. The protection provisions of the Agreement apply to wetlands. Please refer to responses to EA-1, master comments (pre-project conditions), PD-5 (springs), and VE-5.

RESPONSE A4-52

Please refer to response to master comment AL-3 for an update on water conservation measures adopted by Los Angeles.

RESPONSE A4-53

Please refer to response to master comment AL-3 for an update on water conservation measures adopted by Los Angeles. The recent ordinance requires specific reductions in use.

RESPONSE A4-54

Please refer to response to master comment AL-3 for an update on water conservation measures adopted by Los Angeles.

RESPONSE A4-55

The conclusion that environmental effects of expanded conservation would be minimal pertain to long term water conservation and use. It is acknowledged that conservation, particularly during short term droughts, could result in significant effects, both adverse and beneficial, in Los Angeles. Los Angeles is committed to implementing water conservation measures required by law that may not be part of this project.

RESPONSE A4-56

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 A4-57

The phenomenon of bank erosion and sediment transport is acknowledged in Chapter 9, Water Resources, pages 9-48 and 9-58. Little is known about this phenomenon. It will be the subject of future study as described in Section V, page 121, of the Green Book. Also, please refer to response to master comment PD-3 for discussion of Mono Basin.

RESPONSE A4-58

This comment draws a conclusion of cause and effect concerning wildlife populations in Owens Lake and water management activities. Owens Lake is not included in the project. Please refer to response to master comment PD-3. As a result of a court decision, LADWP is legally required to ensure that water is not discharged into Owens Dry Lake. Please refer to Chapter 9, Water Resources, page 9-53, Impact 9-4.

RESPONSE A4-59

Please see response A-4-23 above. The Draft EIR states in Chapter 9, Water Resources, page 9-53, Impact 9-5, that no stream channels were lined or diverted between 1970 and 1990. Also, please refer to response D77-35 in Letter D-77.

RESPONSE A4-60

Please see response to master comment MT-6 for a discussion of the Lower Owens River Project; and Figure C2-1 in Appendix C-2 for discussion of lakes in this region. Also, please see Chapter 9, Water Resources, page 9-54, Impact 9-6, and response A4-40 above.

RESPONSE A4-61

Little is known about the phenomenon of sediment transport along the Owens River. It will be the subject of further study under Section V of the Green Book. No study on channel stability and erosion on stream reaches on DWP property has been completed. Please see response A4-57 above.

RESPONSE A4-62

Please refer to Chapter 9, Water Resources, page 9-56, Impact 9-8. The practices described in this comment are outside the project.

RESPONSE A4-63

Flows at artesian wells vary depending on pumping and wet and dry runoff conditions. The pre-project conditions are addressed in EA-1. See response to master comment WL-4.

RESPONSE A4-64

This comment pertains to pre-project practices. No impacts to fish and wildlife resources as a result of the project are known to have occurred in Tinemaha Reservoir since 1970. There are no known studies that correlate fluctuating reservoir levels in Tinemaha with changes in fish populations.

RESPONSE A4-65

The groundwater recharge facilities referred to in this comment were constructed in the pre-project period. With the exception of the new facilities proposed as part of this project (see Chapter 16, Ancillary Facilities), no change is proposed to recharge facilities or in their use. Also please refer to response A5-1 in Letter A5.

RESPONSE A4-66

Please see Chapter 9, Water Resources, page 9-73, Impact 9-13, for discussion of hatcheries; and page 10-32 regarding springs and seeps, and Impacts 10-14 and 10-15 (pages 10-59 through 10-63); and response to master comment PD-5.

RESPONSE A4-67

Chemical applications are not part of the proposed project. Please see response A4-29 above.

RESPONSE A4-68

Please see response to A4-40 above for discussion of the Lower Owens River Project.

RESPONSE A4-69

Sources of diversion include aqueduct spillgates and the intake. Data on surface water quantities diverted are available at LADWP's offices.

RESPONSE A4-70

Comment noted. Please see Figure 9-1 in Chapter 9 of the Draft EIR (page 9-4), which shows flows at Keeler Bridge.

RESPONSE A4-71

Impact 9-3 references Chapter 5 which describes the Lower Owens River Project (page 5-21). Also see response to master comment MT-6 and Appendix C-2. The miles of river left dewatered are not identified as mitigation.

RESPONSE A4-72

See Chapter 9, page 9-53, Impact 9-5. No stream channels were lined since 1970. Also, please refer to response D77-35 in Letter D-77.

RESPONSE A4-73

Comment noted. Thank you for your interest and participation in the EIR process.

RESPONSE A4-74

Please see response to comment A4-64.

RESPONSE A4-75

Please see response to master comment WA-1. The water supply to the hatcheries has exceeded historical spring flow, and has resulted in increased fish rearing capacity.

RESPONSE A4-76

As shown on Table 9-4, drought and groundwater pumping during the pre-project period caused fluctuations in flow at Fish Springs and Blackrock Springs. However, as stated in Impact 9-13, continuous pumping after 1970 from wells supplying the Fish Springs and Blackrock Fish Hatcheries has caused a cessation in flows from Fish Springs and Blackrock Springs. Without groundwater pumping to supply the hatcheries, flow from both springs would resume. Please see responses to master comments MT-3 and MT-8 regarding mitigation.

RESPONSE A4-77

Current criteria for determination of wetlands do not support the estimate of 84,000 acres of wetlands. Please see responses to master comments VE-5, regarding use of aerial photography, and MT-4, regarding continuation of E/M projects. See response A4-17 above and response to master comment MT-6.

RESPONSE A4-78

Please see response A4-17 above.

RESPONSE A4-79

Maps of plant and animal species of concern are not typically included in public documents since these species are sometimes sought after by collectors. For instance, many species of Mariposa lily are gathered by horticultural collectors for home gardens or resale. LADWP maintains a full inventory and maps of all known populations of sensitive plant species and this information has been, and will continue to be supplied to the CNDDDB and CNPS. Also, please refer to response to master comment VE-6 for additional discussion.

RESPONSE A4-80

The last paragraph on page 10-20 is replaced with the following paragraphs:

"In general, wetland habitats are habitats of concern in California. The various State and federal agencies have defined wetlands somewhat differently, but there are three elements common to all definitions. The Federal Manual for Identifying and Delineating Jurisdictional Wetlands states 'Wetlands possess three essential characteristics: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology, which is the driving force creating all wetlands. These characteristics and their technical criteria for identification purposes are described in the following sections. The three technical criteria specified are

mandatory and must all be met for an area to be identified as wetland. Therefore, areas that meet these criteria are wetlands.¹

"The U.S. Army Corps of Engineers (COE) regulates the placement of fill in wetlands or waters of the United States under Section 404 of the Clean Water Act. The building of roads, bridges, canals, or other structures that would place dredge materials or fill in water of the U.S. would require a Section 404 permit from the COE.

"In addition, the alteration or modification of creeks or streams would require authorization from the California Department of Fish and Game under Section 1601 of the California Fish and Game Code."

There are no proposed actions in the project involving placement of dredged or fill materials in waters of the United States or associated wetlands. It is believed that there are no elements of the project subject to the above permitting process.

RESPONSE A4-81

Comment noted. The classification of vegetation into management types will be reviewed as part of a study under Section V of the Green Book. If necessary, refinement of classification would be made at that time. Also see response A4-17 for discussion of interpretation of the classification system.

RESPONSE A4-82

Comment noted. Please see response A4-81 above.

¹ Federal Interagency Committee for Wetland Delineation. 1989. Federal Manual for Identifying and Delineating Jurisdictional Wetlands. U. S. Army Corps of Engineers, U. S. Environmental Protection Agency, U. S. Fish and Wildlife Service, and U. S. D. A. Soil Conservation Service, Washington, D. C. Cooperative technical publication. 76 pp. plus appendices.

RESPONSE A4-83

The statement regarding the drought tolerance of some Type C vegetation was meant to be relative. A number of species within these communities do tolerate longer dry periods than many other obligate wetland species. There is no question, however, that prolonged drought can have a serious impact on this vegetation. Although the Agreement does allow for conversion from Type C to Type D or E, this conversion is not desired, and with monitoring and management should not happen. Also, please refer to responses to master comments MT-1 through MT-8 on mitigation, and VE-1 for allowable vegetation changes under the Agreement.

RESPONSE A4-84

Comment noted.

RESPONSE A4-85

Please refer to responses to master comments VE-3, VE-4 and VE-5 for detailed discussion of the studies cited in this comment.

RESPONSE A4-86

Please see response A4-40 above. Impacts 10-11 through 10-20 in Chapter 10, Vegetation, discuss vegetation impacts due to pumping, including E/M wells, and due to surface water management.

RESPONSE A4-87

Of the water bodies described in Impact 10-5, and referenced in this comment, only Little Blackrock Springs pond is considered mitigation. Please see Chapter 10, Vegetation, page 10-62, Mitigation Measure 10-14.

RESPONSE A4-88

Saltcedar control is a part of the Agreement. If the Agreement is approved, a program for saltcedar control would be initiated as described in Section XIV.A (page B-40) of the Agreement. Also, please refer to response to master comment VE-7.

RESPONSE A4-89

Please refer to responses to master comments VE-3 and VE-4 for a discussion of the issue of acreage discrepancies of impacted vegetation.

RESPONSE A4-90

The 1,015 acres cited corresponds to Impacts 10-11, 10-12 and 10-13. Comment noted on alfalfa use as mitigation.

RESPONSE A4-91

The impact, if any, on *Sidalcea* population in the Five Bridges area is being investigated by the Technical Group. As part of the restoration of the Five Bridges area, described in Mitigation Measure 10-12 of the Draft EIR, the Technical Group will continue to monitor this species and its relationship to existing vegetation and land use practices, and whether any changes in the population are attributable to the project.

RESPONSE A4-92

Please refer to responses to master comments MT-3, MT-6 and MT-8 regarding mitigation, WA-4 regarding Reinhackle Spring, and PD-5 regarding protection of springs.

RESPONSE A4-93

In the absence of any data collected by LADWP or presented by Fish and Game, to speculate about impacts to invertebrate species would have very limited value to the Draft EIR.

RESPONSE A4-94

While fire was a factor in the vegetation loss near Five Bridges, it was not a major factor in the Laws area. The Draft EIR correctly points out that groundwater pumping was the primary factor behind vegetation loss.

RESPONSE A4-95

Mono Basin activities prior to 1970 are outside the scope of this EIR. Please refer to response to master comment PD-3 regarding the exclusion of Mono Basin from the EIR.

RESPONSE A4-96

In Chapter 9, Water Resources, page 9-53, Impact 9-5, the Draft EIR correctly states that between 1970 and 1990 no stream channels were lined, or stream flow diverted into pipelines by LADWP. There was no increase in surface diversion since 1970, but a lesser diversion in those few locations where flood irrigation was replaced by sprinkler irrigation. Please refer to A4-23 for additional discussion of pre- and post-1970 diversions. Also, please see response D77-35 in Letter D-77.

RESPONSE A4-97

The comparison of vegetation between 1970 and the 1984-87 Inventory was made based on knowledge of LADWP personnel and others who were in Owens Valley during those periods. This assessment is admittedly qualitative and not quantitative. The assumption that 1970 vegetation was probably of better health than subsequent years up to 1982 is consistent with the findings of significance in the Draft EIR.

RESPONSE A4-98

Please see response A4-17 above regarding aquatic vegetation.

RESPONSE A4-99

Canal maintenance activities are not part of the proposed project and are not evaluated in this EIR.

RESPONSE A4-100

The issue of mitigation requirements under CEQA are discussed in detail in response to master comment MT-3.

RESPONSE A4-101

This comment expresses an opinion on the merits of the project. Comment noted. See responses to master comments PD-5 and WA-4.

RESPONSE A4-102

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

RESPONSE A4-103

The discussion of basic biology was taken directly from the Department of Fish and Game's 1974 submittal for DWP's first project EIR. Pre-project wildlife information is not available and thus is not included in the Draft EIR. Please refer to response to master comment EA-1 regarding pre-project conditions. Finally, a HEP is not feasible for a study area such as the Owens Valley. Please refer to response to master comment WL-5 for a discussion on HEP.

RESPONSE A4-104

It is acknowledged that riparian habitat is of prime value. The Agreement does not alter this in any way.

RESPONSE A4-105

The CNDDB was consulted during preparation of the Draft EIR.

RESPONSE A4-106

The corrections offered in this comment have been included in response to master comment WL-3 and Chapter 3, Revisions to the Agreement and the Draft EIR, of this document. Also see response A4-110 for discussion of the Least Bell's Vireo. It is acknowledged that the Mohave ground squirrel occurs in Inyo County; however it is not known to occur north of Haiwee Reservoirs. There are no ancillary facilities proposed in the Haiwee Reservoirs area.

RESPONSE A4-107

In Chapter 11, Wildlife, Table 11-2 and discussion on page 11-21 are part of Section 11.2, Pre-Project Setting; that is, prior to 1970. The Whitney herd was not established until 1972.

RESPONSE A4-108

Table 11-6, as well as the entire chapter, was written and submitted for printing prior to the completion of the 1990 aerial census.

RESPONSE A4-109

Comment noted.

RESPONSE A4-110

The population of Least Bell's Vireo has been known to be in decline state-wide since the 1930s. Although it was known to historically occur in Owens Valley, Death Valley and scattered oases, to our knowledge it has not been sighted in Owens Valley for 20 years. Goldwasser, in a 1977 survey for the Least Bell's Vireo, did not find any individuals in Owens Valley (Goldwasser, et. al., American Birds 1980). Today it is found in 30 scattered locations, all in Southern California. It is believed that the decline of the Least Bell's Vireo parallel the population increase in the Brown-headed Cowbird. Other references include DFG, 1989 Annual Report on the Status of California's State Listed, Threatened & Endangered Animals, page 55; which acknowledges that the species is not found in Owens Valley. It is therefore not included on the list in Table 11-5.

RESPONSE A4-111

Comment noted. Please refer to response to master comment EA-1.

RESPONSE A4-112

Additional mitigation measures, if required, would be developed by the Technical Group as described in Section I.C.2 of the Green Book. Comment noted. No further response is required.

RESPONSE A4-113

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 A4-114

Mono Basin and Long Valley are outside the scope of this EIR. Comment noted. Please see response to master comment PD-3. Regarding the use of HEP, please refer to response to master comment WL-5.

RESPONSE A4-115

Smallmouth bass, bullhead, and cutthroat trout are added to Table 11-1 in response to this comment.

RESPONSE A4-116

Fisheries development in Owens Valley and Eastern Sierra have a long history dating back to the late 1800s and continuing to the present. LADWP has cooperated closely with fisheries programs implemented by the State Department of Fish and Game in Owens Valley since the 1960s. Most important, LADWP provides the water necessary to supply local ponds and lakes. The program also consists of maintaining water supplies to local fish hatcheries, cooperation with State and federal agencies in habitat improvements for federally designated endangered fish species, such as the Owens Tui Chub (found in Mono County), and the Owens Pupfish. LADWP cooperated with State Department of Fish and Game in the development of the Owens Valley Fish Sanctuary in 1969 and continues to supply water for its operation today. LADWP also provided land, water, and engineering design services for the Warm Springs Pupfish sanctuaries in the late 1960s. Also in the late 1960s, LADWP created warm water fisheries at Buckley Ponds and Lone Pine Pond. LADWP continues to cooperate with Fish and Game in programs involving reintroduction of endangered fish species in local lakes and ponds.

LADWP and Inyo County also initiated rewatering of the lower Owens River in 1986 for enhancement of a warm water fishery. The Agreement element of the proposed project includes further development of the Lower Owens River Project. This involves increased rewatering of a 56-mile stretch of the Owens River channel between Blackrock and Lone Pine, in addition to water releases into the river channel initiated in 1986. For a detailed description of the proposed further development of the Lower Owens River Project, please refer to Appendix C-2.

RESPONSE A4-117

Tourism and recreation are accurately described as important components of the regional economy in Chapter 14, Land Use and Economic Development of the Draft EIR.

RESPONSE A4-118

Please see response to comment A4-116 above.

RESPONSE A4-119

Please refer to responses to master comments EA-1, pre-project conditions, and WL-5, the feasibility of HEP.

RESPONSE A4-120

It is believed that the impacts and mitigation measures are appropriately described in the Draft EIR, and in the responses to comments contained in this Final EIR. Mono Basin and Long Valley are outside the scope of this EIR. Please refer to response to master comment PD-3 regarding Mono Basin and Owens Lake. Also see responses to comments A4-62, A4-67, A4-72, A4-73 and A4-75.

RESPONSE A4-121

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

RESPONSE A4-122

Please refer to response to master comment EN-1 for discussion of energy.

RESPONSE A4-123

The information presented in the Draft EIR is sufficient to establish the role and contribution recreation plays in the regional economy.

RESPONSE A4-124

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 A4-125

LADWP will continue to use existing diversion facilities for groundwater recharge. Please see response to master comment AF-1 regarding ancillary facilities.

RESPONSE A4-126

Please refer to responses to master comments PD-4 and AF-2 regarding new wells.

RESPONSE A4-127

The missing information was a typographical error. The missing text is ". . . in vege---" that should be inserted at the top of page B-19. No other text was omitted. The Agreement text will be corrected.

RESPONSE A4-128

Please refer to response to master comment PD-6 for a discussion of issues of unilateral well turn on/off.

RESPONSE A4-129

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 A4-130

Comment noted.

RESPONSE A4-131

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 A4-132

Comment noted.

RESPONSE A4-133

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 A4-134

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 A4-135

Comment noted. No further response is required; however, salamander species are not known to occur on the valley floor, and are believed to inhabit water courses in the mountains. Please see Letter C18, Comment 14. For this reason, salamanders have not been added to the Appendix.

RESPONSE A4-136

Comment noted. Thank you for your interest and participation in the EIR process.

RESPONSE A4-137

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 A4-138

A determination of measurability will be made if any of the relevant factors considered indicate even a small documentable change in vegetation cover or composition has occurred. Also, see Section V.B (page 118), Further Studies, of the Green Book.

RESPONSE A4-139

Comment noted. The provision regarding groundwater mining is related to the concept of safe yield. Please refer to response to master comment PD-12 for a discussion of groundwater mining.

RESPONSE A4-140

Comment noted.

Letter A5

United States Department of the Interior, Bureau of Land Management



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
BISHOP RESOURCE AREA
787 NORTH MAIN STREET, SUITE P
BISHOP, CALIFORNIA 93514-2498



IN REPLY REFER TO:

8000
(CA-017.3)

January 28, 1991

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

Dear Mr. Davis:

The staff of the Bishop Resource Area has reviewed the Green Book, the Draft Environmental Impact Report and the Appendices related to the Long Term Water Agreement between the City of Los Angeles Department of Water and Power and the County of Inyo. Overall, we view the agreement as a positive step toward resource management in the Owens Valley. Through the comprehensive monitoring and mitigation program described, a process will be initiated which will begin to address critical resource issues in the Valley. Our specific comments are as follows:

Water Management in Owens Valley (Section 4)

1. On page 4-9 the statement "... LADWP developed groundwater recharge facilities and since the 1930's has regularly diverted and spread water to these facilities in above average runoff years" should be expanded to include the exact locations of the diversion structures (this would include a legal description to the quarter-quarter section and a map at 7.5 minute topographic scale depicting the sites), quantification of the amount of water diverted by year from a stream or other source, and the water rights under which the diversions are authorized. The document should also identify those stream reaches (including length of affected stream) which are subject to the diversions and the magnitude of change in surface water flow. This information should also be described by year for the period of record prior to 1970 and the period after 1970.

Water Resources (Section 9) - Comments 1 & 2 are the same as Comment 1 above.

1. On page 9-24, the first paragraph, reference is made to construction of facilities between 1950 and 1968 by LADWP to enhance natural groundwater recharge in the Owens Valley. The statement "... facilities include structures to divert water out of various streams. ..." should be specifically identified as to location, amount of water diverted annually, and water right authorizing diversion.
2. On page 9-24, the first paragraph, reference is made to LADWP spreading facilities located in the Laws, Big Pine and Independence areas and their graphic representation in Appendix D. The maps of spreading locations in Appendix D are inadequate in their representation of surface water resources

affected and the locations of the diversion structures. The following should be included as improved graphics in Appendix D: a smaller scale map (7.5 minute topographic scale) of diversion structures in the three areas, stream reaches affected, other surface water sources affected, and land ownership pattern.

- 4
3. In Impact 9-5, page 9-53, the statement ". . . there will be no significant alteration of flow in the tributary streams" should be expanded to explain what changes in tributary stream flow are projected to occur under the Agreement. "Significant alteration" is not defined in the document. Does the equation for "Streams" on page 105 of the Green Book allow calculation of a significant change in tributary stream flow, and if so, how? If this equation does not allow determination of a significant change in stream flow, then please provide the necessary equation. By implication of the above statement, some change in stream flow is projected, thus, we request the impacts to aquatic habitats resulting from recharge activities be discussed (i.e. the affects on fish and riparian vegetation when stream flow is removed in those water years which are $\geq 101\%$ of normal).

5

Ancillary Facilities (Section 16)

1. On page 16-1, no discussion is given to water spreading activities in the Independence locations for the pre-project and 1970-1990 time period. Discussion should be given to this area, particularly to those details which have been expressed previously.
2. On page 16-4, no reference is made to the specific operation of water spreading facilities in the Independence area for the post-1990 project time period. Please provide a discussion of projected water spreading operations for this time period.
3. On page 16-4, no reference is made to whether new or improved recharge facilities are contemplated in the Independence spreading area. What is planned for this area regarding recharge facilities?
4. We have no record of how any of the existing facilities in the Independence locations are authorized on BLM land. The berms and dikes are not shown on our master title plats. Please provide us with this information so it can be added to our records.
5. Some of the facilities west of Independence are within Wilderness Study Areas (WSAs). We cannot authorize any additional facilities in a WSA.

The BLM requests the above information be provided for Sections 4, 9, and 16 due to the potential impact to resources located on Bureau administered lands.

6

Development of a Comprehensive Water Conservation Education Program Tied to the Resources of the Owens Valley

As described in Chapter 3, LADWP has made a committed effort towards the development of a water conservation program in the metropolitan area. The EIR states on page 3-11, "More than \$8 million has been budgeted by LADWP for conservation activities during the 1990-91 fiscal year." For school age children LADWP has developed portable exhibits, films, workbooks, teacher's guides and other materials.

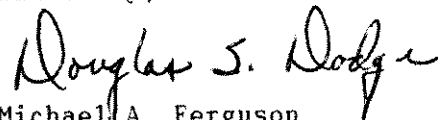
A logical extension and enhancement of this program would be to expand the water conservation education program to include an on-site program in the Owens Valley. This would better acquaint students and teachers with the water source and how LADWP, Inyo County and the responsible Federal and State agencies comprehensively manage the natural resources of the Owens Valley. The Inyo County Office of Education and the BLM have proposed a farsighted program to expand and develop the use of Camp Inyo - the Inyo County Environmental Education site, already owned by the Department for a water conservation education project. For your review we have included a draft issue paper developed by various interested parties.

In reviewing the long term water agreement, it would appear that the development of such a water conservation education program would be a positive mitigation which would benefit both local students and teachers, and students and teachers from the metropolitan area. The agreement as written would appear to allow for the development of such a program. Under the section Enhancement and Mitigation Projects it states, "New and presently undefined projects may be implemented if such projects are approved by the Standing Committee."

At present the water conservation education project exists solely as a positive idea supported by the Inyo County Office of Education and the BLM. With this in mind, proponents of the program would be glad to brief the Board of Supervisors on the proposal and what the benefits would be to Inyo County and to the Los Angeles water user.

In conclusion, we would like to see water spreading data clarified which would include location of diversion structures, amount of water diverted by year, affected stream reaches, an impact analysis of aquatic habitat affected by water spreading diversion, and adoption of a water conservation education element for the Owens Valley.

Sincerely,



for Michael A. Ferguson
Area Manager

Enclosure: The Eastern Sierra Conservation Initiative

cc: Inyo County Office of Education
P.O. Drawer G
Independence, CA 93526-0607

Inyo County Board of Supervisors
168 N. Edwards
Independence, CA 93526-0607

John Graves
Bureau of Indian Affairs
Branch of Water Resources
316 N. 26th, Federal Bldg.
Billings, MT 59101

DRAFT

*THE EASTERN SIERRA
CONSERVATION INITIATIVE*



Bureau of Land Management
City of Los Angeles Dept. of Water & Power
RIMS Regional Center
Riverside County Office of Education
Inyo County Office of Education
Mono County Office of Education
San Bernardino Office of Education

November, 1990

TITLE: Eastern Sierra Conservation Initiative

ABSTRACT: This initiative proposes to establish a unique conservation education program in the Eastern Sierra. Participants would include area communities, school districts and people who benefit from the area's resources of water, recreation values, and other natural features. It would be a cooperative effort between federal, state and local interests.

OBJECTIVE: 1) To develop conservation education curricula for secondary students and to conduct associated field studies in the Owens Valley.

2) To develop workshops to train teachers in conservation education curricula related to the Owens Valley. The teachers would teach these curricula at their schools.

3) To develop a comprehensive conservation education program stressing conservation of natural resources with an emphasis on water.

BACKGROUND: The Eastern Sierra region is recognized as one of the most unique areas in the world. A land of many contrasts, the Eastern Sierra ranges from rugged and towering granitic mountains to low sparsely vegetated desert valleys. Its natural features and scenic beauty attract millions of visitors yearly. Known for its many natural resources, the area sustains a desirable quality of life for local residents, and provides resource benefits to millions of Los Angeles residents.

Typically, the use of these resources entails consequences and environmental changes that is often overlooked by the user or area visitor. The intent of this conservation education initiative is to increase both students' and users' awareness of these resource values and to conserve the resources for future generations. At present, both local and out-of-area groups have expressed interest to develop a comprehensive conservation education program.

**PILOT PROGRAM
PROPOSAL:**

During the first year, phase 1 of the conservation education program would begin with a pilot program. In following years, the program would expand and reach larger audiences as well as include additional conservation subjects.

In the first phase, the RIMS County Offices Of Education would direct the overall development of curricula for secondary students. Inyo County's Camp Inyo would serve as a setting for curricula instruction. Camp Inyo presently serves as an environmental education field camp and is used about 2 months each year. Program elements to be developed in the first phase include:

1. Curriculum Development for High School Students - Area agencies would provide expertise to Inyo County's Office of Education (ICOE) and local high school teachers to prepare appropriate curricula for secondary level students. Tentative topics would include hydrologic cycle/water conservation and use, wildland fire ecology/suppression management, wildlife resources/habitat needs, geologic features/mineral production, etc. The Bureau and California Department of Fish and Game have committed assistance to Inyo County to complete this effort.
2. Teacher Workshops - This program element augments curricula development for secondary students. It provides to interested teachers the developed curricula as well as associated field studies. The teachers would then use this information in their local schools. Three or four workshops are proposed to be conducted in 1991. Based on preliminary interest, the Riverside and San Bernardino school districts will provide teachers for the workshops. Logistics and funding will be provided by the respective school districts. Local teacher participation will also be encouraged.
3. Eastern Sierra Conservation Experience/Student Field Academy - This element consists of field studies using the agency developed curricula. The academy would occur over a 5 day period and a "hands-on" experience offered to the participants.

PILOT PROGRAM SUPPORT NEEDS:

The following resources will be provided by the individual participants:

<u>PARTICIPANTS</u>	<u>SUPPORT</u>
Rims Regional Center	
Inyo County Office of Education	Half-time position - Environmental Education Coordinator; Camp Inyo-lodging and support services; County will serve as lead on curricula development, teacher workshops, and field academy.
Mono County Office of Education	County has expressed desire to support program. Contributed support and services to be determined.
Riverside County Office of Education	Will participate and benefit from pilot teacher workshop and student field academy sessions.
San Bernardino County Office of Education	Will participate and benefit from pilot teacher workshop and student field academy sessions.
Bureau of Land Management	Half-time position - BLM will take lead to provide and coordinate conservation initiative beyond pilot program. BLM will contribute 3-4 staff months to develop secondary curricula, assist with teacher workshops and field academy. As a funding challenge, the BLM proposes to provide \$50,000 to expand the conservation education initiative beyond the first phase. The Bureau invites other participants to match its contribution. Due to LADWP's commitment to conservation education, it is proposed that they match this sum.
Los Angeles Department of Water and Power	Support and service to be determined.

Beyond the Pilot Program... The Focus for the Future

Based on review of the pilot program's effectiveness, phase 2 of the conservation education initiative would expand to other areas. There are many options to convey our conservation message, expand the program, and increase its influence. If funding is provided by the BLM and LADWP, a more comprehensive program will be undertaken. Options for consideration include:

- 1) Urban User Awareness and Water Conservation Education Program -
The program would provide focused teacher workshops and student field academies for a target school district in the Los Angeles metropolitan area. A sample of this population would then be studied to correlate domestic water use changes with educational awareness. In addition, water billing statements mailed to users within the target area would convey a strong water conservation message associated with the school effort.

- 2) Eastern Sierra Conservation Education Foundation -

A nonprofit educational foundation would be established. Its purpose would be to promote regional water conservation initiatives, develop common and unified educational programs for use regionwide, act as a regional clearinghouse for water conservation information, and promote research and testing of new technologies to meet future water conservation needs. This multi-agency and corporate inspired foundation would expand the existing program beyond its present influence. Water conservation will become a major environmental theme in the southwestern United States in the 1990's. Just as major corporations and benefactors have met the challenge of conservation needs in the past, i.e. Chevron and the Yosemite Fund, water conservation constitutes a major environmental issue we must address.

- 3) Eastern Sierra Conservation Center -

An educational facility of exhibits, displays, and programs would be established in Bishop for visitors to learn about water conservation and the area's natural resources. The facility would contain meeting rooms and an auditorium for seminars, conferences and symposiums. It would also serve as the administrative headquarters of the Eastern Sierra Conservation Education Foundation. Programs to be developed would include water conservation, and other resource educational programs such as Tread Lightly, wilderness ethics (leave no trace), hunter safety, etc. Existing environmental education programs such as Project Wild, Acclimatization, NOLS, and Outward Bound could use the center as a base of operation. A primary target audience of the facility would be children.

PREPARER'S BACKGROUNDS

Linda Keating - Linda is the director of the environmental education program for Inyo County Office of Education. She obtained a teaching credential from University of the Pacific and has taught second grade. Prior to this she was an environmental instructor in the costal redwood areas of San Mateo County. She is excited at the opportunity to expand environmental education in Inyo County.

Jim Jennings - Jim is currently a Bishop R.A./Recreation Specialist. He has over 12 years of experience with the BLM, working in the areas of environmental education and environmental coordination. Prior to this, he worked for the National Park Service and spent 2 1/2 years in the Peace Corps, working with El Salavdor's National Park Service. He has a BS in forestry from the University of Vermont. Hobbies include bicycling, skiing and exploring the Public Lands. He may be reached a 619-872-4881.

Joe Pollini - Joe is the Bishop Resource Area Wilderness/Recreation Specialist. He brings to his job over 13 years of professional experience in recreation and wilderness management. Prior to his present position, Joe worked for the Young Adult Conservation Corps in the area of environmental education. Joe has a BA in history from Loyola University and an MS from Southern Illinois University with an emphasis in recreation/environmental education. He enjoys outdoor activities - hiking, cross-country skiing, and biking. He may be reached at 619-872-4881.

RESPONSES TO COMMENTS LETTER A5

RESPONSE A5-1

The surface water diversion structures used in water spreading that are referenced in Chapter 4, Water Management in the Owens Valley, page 4-9, were constructed from the turn of the century up to the 1960s. These structures have been utilized since their construction. The locations of water spreading practices have not changed under the project since 1970 and no changes are proposed as part of the Agreement in the future. These facilities pre-date the project and are not analyzed in the Draft EIR. The issue of water rights, diversions, and flow amounts related to water gathering in the pre-1970 period is outside the scope of this EIR. Since 1970, all LADWP diversions have been performed with permits in accordance with applicable law. This information is available directly from LADWP.

RESPONSE A5-2

See response to comment A5-1 above.

RESPONSE A5-3

The maps and description of recharge facilities in the Draft EIR are representative of the general locations and scale of recharge operations. This information is available at LADWP offices.

RESPONSE A5-4

There are no proposed alterations in tributary stream flow under the proposed Agreement.

RESPONSE A5-5

Water spreading activities in the Independence area predates the project. No changes are proposed to spreading operations in the Independence area. This information has been provided to BLM in separate correspondence, independent of the EIR process. It is still available directly from LADWP if desired.

RESPONSE A5-6

The water conservation education program is a good concept, and Los Angeles and Inyo County would be pleased to meet with BLM and the County Superintendent to discuss it. Please also refer to response to master comment AL-3 for a discussion of water conservation by the City of Los Angeles.

RESPONSE A5-7

This comment summarizes concerns expressed in preceding comments. No further response is required.

Letter A6

State of California, Department of Fish and Game

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**RESPONSES TO COMMENTS**  
**LETTER A6**

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This letter is a duplicate of Letter A-4, and was sent from a different office of the above agency.  
No further responses are required beyond those provided in Letter A-4.



**Letter A7**

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**State of California, Department of Fish and Game**

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DEPARTMENT OF FISH AND GAME  
330 Golden Shore, Suite 50  
Long Beach, CA 90802



February 28, 1991

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

Dear Mr. Davis:

Please make the following corrections in our Attachment to letter dated January 28, 1991 providing comments on the Draft Environmental Impact Report for the Water from the Owens Valley to Supply the Second Los Angeles Aqueduct project.

Page 21, item 5, line 3: The year should be 1971.

Page 21, item 6, line 2: Add - Total elk - 358; bulls - 81;  
cows -237; calves - 40.

The above information was inadvertently omitted. If you have any questions, please contact Ms. Denyse Racine, Wildlife Biologist at 401 West Line Road, Bishop; telephone: (619) 872-1171.

Sincerely,

*R. E. Mall for*

Fred Worthley  
Regional Manager  
Region 5

cc: State Clearinghouse (SCH 89080705)  
Resources Agency  
ESD  
Ms. D. Racine  
Mr. D. Wong



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**RESPONSES TO COMMENTS**  
**LETTER A7**

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**RESPONSE A7-1**

The comments containing corrections in Letter A-4 have been incorporated. No further response is required.



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## LOCAL AGENCIES



**Letter B1**

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**County of Inyo, Supervisor 1st District**





H. B. IRWIN  
SUPERVISOR 1ST DISTRICT

358 MT. TOM RD.  
BISHOP, CA. 93514



LETTER B-1

TELEPHONE 619-873-6923

COUNTY OF INYO  
BOARD OF SUPERVISORS

December 11, 1990

DROUGHT RECOVERY POLICY.

This Drought Recovery Policy does not protect the vegetation of the Owens Valley.

This Drought Policy only addresses THIS drought. (This drought is mentioned 3 times.) Any policy adopted MUST address all drought situations, now and in the future.

This Drought Policy allows ground water pumping to continue as long as there is sufficient moisture in the soil to support the vegetation. Therefor, the ground water can be pumped to a depth beyond sufficient recovery time to protect the vegetation when the soil moisture is no longer adequate in the rooting zone.

Would you explain what represents a drought? 10% less than normal run-off or 95% less than normal run-off.

Copy attached. (10-70 in the DEIR)

*H.B. Irwin*

H.B. Irwin, Supervisor

HEI/ri

As stated in Chapter 9 - Water Resources, because of an extremely wet period between 1982 and 1986, the water table recovered to pre-1970 levels in all areas of the Valley except around the Fish Springs and Blackrock fish hatcheries and in portions of the Laws area. During this same period, because of high runoff, precipitation and the restored water tables, vegetation recovered to its greatest vigor since 1970. Under the provisions of the Agreement, the goal is to manage groundwater and surface water to avoid significant decreases and changes from these vegetation conditions; therefore, these provisions of the Agreement are themselves a mitigation measure.

It should be emphasized that under the Agreement, mitigation is not a primary goal, but a secondary tool to be employed if the primary goals are not fully achieved. As identified in Section 5 of the Green Book, research and study will be conducted by Inyo County and Los Angeles for the purposes of improving the existing methods of managing Owens Valley's water resources and of improving upon existing mitigation techniques. Among the studies that will be conducted in the near future are those identified in Sections 5.A.1, 5.B.1, 5.B.2, and 5.B.4 of the Green Book. To assist this study effort, a research facility will be constructed in Owens Valley as determined appropriate by the Standing Committee.

Recognizing the experimental nature of some of the management and mitigation techniques, and under the severe conditions of the current drought, it has been agreed by LADWP and Inyo County to conservatively manage groundwater pumping during this drought and during a period of recovery following the drought, LADWP and Inyo County have agreed that the following policy will govern future groundwater pumping:

"Recognizing the current extended drought, the Standing Committee establishes a policy for annual management of groundwater pumping during this drought. The goal of this policy is that soil water within the rooting zone recover to a degree sufficient so that the vegetation protection goals of the Agreement are achieved. To this end, groundwater pumping during this drought, as well as the period of recovery, will be conducted in an environmentally conservative manner, taking into consideration soil water, water table, and vegetation conditions. It is recognized that soil water in the rooting zone is naturally replenished by precipitation and from the water table. Further, soil water, water tables, and vegetation conditions will be monitored by the Technical Group to ensure that the goal of this policy is being achieved and for purposes of evaluating the effectiveness of the existing well turn-off/turn-on provisions."



COUNTY OF INYO  
BOARD OF SUPERVISORS

December 11, 1990

RE: 20 year average recharge and pumping.

This comment is in reference to page 170 of the Green Book prepared by Bill Hutchison. This is also listed in the Draft E.I.R. on page 5-5.

This pumping table cannot be used in the Woens Valley. The average must be figured on an annual basis similar to the one being used in the litigation between Inyo County and the Las Vegas Water District.

Mr. Hutchison's recommendation is not beneficial to Los Angeles or for the Owens Valley vegetation. For example: if we had 15 years of under average recharge, and then 5 years of over average recharge, Los Angeles would not be allowed to pump for export even if the aquifers were full. On the other hand, if we had 15 years of over average recharge and then 5 years of drought as is now being experienced, Los Angeles would be allowed to pump for export regardless of the condition of the vegetation.

Mr. Hutcheson's table indicates that 21,564 acre feet of water may be pumped in the Laws well field in 1990. We have information that now shows the water table to be below 100 feet, and all the vegetation is either dying or already dead. Groundwater mining must be monitored each year rather than over a long period of time. This must corrected.

Copy attached.

*H. B. Irwin*

H. B. Irwin, Supervisor

HBI/ri

Table 14 - Summary Of Estimated Recharge And Historical Pumping In Acre-Feet For Water Years 1969 Through 1990

| WATER YEAR    | LAWS     |         | BISHOP   |         | BIO PINE |         | TABOOSE-THIBAUT |         | IND-SYM-BAIRS |         | LONE PINE |         | OWENS VALLEY |         |
|---------------|----------|---------|----------|---------|----------|---------|-----------------|---------|---------------|---------|-----------|---------|--------------|---------|
|               | RECHARGE | PUMPING | RECHARGE | PUMPING | RECHARGE | PUMPING | RECHARGE        | PUMPING | RECHARGE      | PUMPING | RECHARGE  | PUMPING | RECHARGE     | PUMPING |
| 1969          | 38281    | 0       | 73212    | 0       | 56899    | 534     | 69211           | 3501    | 71340         | 662     | 24477     | 1260    | 333420       | 5957    |
| 1970          | 10671    | 2616    | 42589    | 0       | 27968    | 2219    | 35405           | 2546    | 37472         | 2929    | 13487     | 2154    | 167592       | 12464   |
| 1971          | 10307    | 21020   | 37129    | 0       | 22768    | 26715   | 28329           | 21482   | 30854         | 23852   | 12092     | 2014    | 141479       | 95083   |
| 1972          | 10125    | 28541   | 34954    | 2363    | 20445    | 41621   | 25218           | 48158   | 27348         | 39814   | 10980     | 2357    | 129070       | 162854  |
| 1973          | 10797    | 22510   | 43442    | 7593    | 28293    | 21493   | 36732           | 39503   | 40085         | 31596   | 15166     | 2364    | 174515       | 125059  |
| 1974          | 18057    | 8528    | 44545    | 1516    | 28935    | 13009   | 37043           | 28239   | 40767         | 18678   | 15236     | 2350    | 184583       | 72320   |
| 1975          | 13441    | 8982    | 39925    | 2415    | 24539    | 32314   | 31130           | 40240   | 33994         | 16299   | 13076     | 1958    | 156105       | 102208  |
| 1976          | 10035    | 15138   | 34363    | 4867    | 19386    | 28566   | 23660           | 53114   | 25588         | 29641   | 10421     | 2167    | 123453       | 133493  |
| 1977          | 9871     | 15661   | 33271    | 11281   | 17404    | 29603   | 20861           | 44712   | 22451         | 23190   | 9397      | 2103    | 113255       | 126550  |
| 1978          | 23108    | 7773    | 53632    | 2758    | 40699    | 34355   | 46662           | 33383   | 50097         | 23572   | 18331     | 2685    | 232529       | 104526  |
| 1979          | 12671    | 6533    | 43755    | 5420    | 30831    | 25796   | 34243           | 15030   | 37563         | 3782    | 14290     | 2038    | 173353       | 58599   |
| 1980          | 24904    | 12511   | 55734    | 2364    | 41863    | 26614   | 50041           | 28047   | 52926         | 14297   | 19281     | 1762    | 244749       | 85595   |
| 1981          | 12463    | 12338   | 41540    | 6919    | 26286    | 27211   | 31438           | 21354   | 34455         | 4702    | 13267     | 1673    | 159449       | 74197   |
| 1982          | 23622    | 14525   | 54899    | 6271    | 39514    | 24302   | 49103           | 26429   | 53359         | 8054    | 19370     | 1306    | 239867       | 80887   |
| 1983          | 35781    | 1038    | 70019    | 11      | 54564    | 25543   | 66183           | 14433   | 69294         | 318     | 24609     | 1250    | 320450       | 42593   |
| 1984          | 11758    | 6854    | 54463    | 3773    | 34320    | 27154   | 48176           | 13691   | 49425         | 367     | 18137     | 1772    | 216279       | 53611   |
| 1985          | 10913    | 10016   | 43995    | 9777    | 26653    | 26937   | 34243           | 27460   | 37594         | 8788    | 14298     | 2197    | 167696       | 85175   |
| 1986          | 31217    | 9953    | 60341    | 1809    | 47994    | 25054   | 56535           | 27325   | 58596         | 7842    | 21221     | 2439    | 275904       | 74422   |
| 1987          | 12405    | 21220   | 38443    | 9558    | 22816    | 38946   | 29544           | 53314   | 30067         | 32542   | 12193     | 1660    | 145468       | 157240  |
| 1988          | 12538    | 22486   | 36729    | 10900   | 20631    | 33667   | 25907           | 55195   | 27169         | 40348   | 11297     | 1389    | 134271       | 163985  |
| 1989          | 12758    | 38167   | 36456    | 11961   | 19765    | 35915   | 23127           | 54284   | 26748         | 34728   | 10992     | 1668    | 129846       | 176723  |
| 1990 (a)      | 10437    | 11850   | 31891    | 2300    | 16478    | 16200   | 20630           | 16050   | 22942         | 11200   | 9655      | 400     | 112033       | 58000   |
|               |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| WY 70-89      |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| TOTAL         | 317442   | 286410  | 900224   | 101556  | 595674   | 547034  | 733580          | 647939  | 785852        | 365339  | 297141    | 39306   | 3629913      | 1987584 |
| AVERAGE       | 15872    | 14321   | 45011    | 5078    | 29784    | 27352   | 36679           | 32397   | 39293         | 18267   | 14857     | 1965    | 181496       | 99379   |
|               |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| WY 71-90      |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| TOTAL (b)     | 317208   | 295644  | 889526   | 103856  | 584184   | 561015  | 718805          | 661443  | 771322        | 373610  | 293309    | 37552   | 3574354      | 2033120 |
|               |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| ESTIMATED     |          |         |          |         |          |         |                 |         |               |         |           |         |              |         |
| APR-SEP 1990  |          |         | (c)      |         |          |         |                 |         |               |         |           |         |              |         |
| PUMPING LIMIT | 21564    |         | 785670   |         | 23169    |         | 57362           |         | 397712        |         | 255757    |         | 1541234      |         |

(a) Estimated Recharge for 1990 Water Year; Approximated Pumping for First Half of Water Year 1990 (Oct-Mar)

(b) Estimated 20 Year Total for Recharge and Estimated 19.5 Year Total for Pumping

(c) Bishop Cone Pumping Actually Limited to No Greater Than the Total Amount of Water Used on Los Angeles-Owned Land on the Cone

H. B. IRWIN  
SUPERVISOR 1ST DISTRICT

358 MT. TOM RD.  
BISHOP, CA. 93514



TELEPHONE 619-873-6923

COUNTY OF INYO  
BOARD OF SUPERVISORS

December 11, 1990

THE WORD SIGNIFICANT.

This word can be interpreted many ways by many people. The word significant is widely used throughout the E.I.R., GreenBook, and the Agreement.

I would like to call your attention to page 7-19, paragraph 14-1. It states that L.A. reduced it's irrigated land within the Owens Valley from 21,800 acres to 11,600 acres since 1970. Your Draft E.I.R. lists this as less than significant.

Is 47% reduction considered insignificant?

5

*H.B. Irwin*

H. B. Irwin, Supervisor

HEI/ri

H. B. IRWIN  
SUPERVISOR 1ST DISTRICT

358 MT. TOM RD.  
BISHOP, CA. 93514



TELEPHONE 619-873-6923

COUNTY OF INYO  
BOARD OF SUPERVISORS

December 11, 1990

ALTERNATIVES.

6

There are 8 alternatives indicated in the Draft E.I.R. page 6-4.

Of those 8 alternatives, number 3 comes closest to satisfying the L.A./Inyo Long Term Water Agreement.

Although the information on alternative #3 is incorrect where it states there will be additional ground water pumping and additional water for export to Los Angeles, if alternate #3 is adopted.

This statement must have been put into alternative #3 for political reasons to make Los Angeles officials think there would be more water for L.A. if alternative #3 was adopted.

H. B. Irwin, Supervisor

ABI/ri

H. B. IRWIN  
SUPERVISOR 1ST DISTRICT

358 MT. TOM RD.  
BISHOP, CA. 93314



TELEPHONE 619-873-6923

COUNTY OF INYO  
BOARD OF SUPERVISORS

December 11, 1990

E.I.R. MITIGATION TRAD-OFF.

If you will note in the E.I.R. Impact Methods and Summary, Section 7-15 & 17, the Lower Owens River project is being used as compensation for many areas damaged throughout the valley caused by Los Angeles Water & Power water gathering activities since 1970.

I have served on the negotiating committee representing Inyo County and the subject of trading the lower Owens River project for other damaged areas within the Owens Valley caused by Los Angeles D.W.P. was never discussed.

You can verify this statement by obtaining a copy of the tapes of all those meetings.

This must be clarified that this matter was never discussed at any of those meetings.

H. B. Irwin

H. B. Irwin, Supervisor

HBI/ri





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## **RESPONSES TO COMMENTS LETTER B1**

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### **RESPONSE B1-1**

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

### **RESPONSE B1-2**

The intent of the drought recovery policy is to protect vegetation; please refer to the policy in response to master comment PD-17.

### **RESPONSE B1-3**

Please refer to response to master comment PD-17 for a description of the drought referenced in the drought recovery program.

### **RESPONSE B1-4**

This comment relates to the issue of groundwater mining, and the adequacy of protections contained in the Agreement against such an occurrence. Please refer to response to master comment PD-12 concerning groundwater mining.

### **RESPONSE B1-5**

The comment is correct in that Impact 14-1, concerning land use, states that the reduction in irrigated acreage is less than significant from the perspective of land use and economic development. From an economic perspective, there were no significant effects due to the acreage reduction because the project resulted in firm deliveries of water to ranchers, which stabilized their production. However, it must be noted that in Chapter 10, Vegetation, Impacts 10-16 through 10-

19 identify significant adverse impacts to vegetation as a result of the reduction in irrigated acreage and the mitigation to reduce these impacts to less than significant.

RESPONSE B1-6

This comment expresses a personal opinion. No response is required.

RESPONSE B1-7

Please refer to master comment MT-3 for a description of mitigation available under CEQA. Comment noted regarding commentor's participation on the Inyo County negotiating committee.

**Letter B2**

---

**Dudley Ridge Water District**



DUDLEY RIDGE WATER DISTRICT

LETTER B-2 507

DIRECTORS  
JOHN HOWE - PRESIDENT  
WILLIAM KLEPPER  
JOSEPH C. MACILVAINE  
BRADFORD C. MUNSON  
KENNETH E. ZEIDERS

3636 NORTH FIRST STREET, SUITE 123  
FRESNO, CALIFORNIA 93726

PHONE (209) 226-2920  
FAX (209) 226-3412

CLARENCE EMERZIAN  
ASSESSOR, COLLECTOR, TREASURER

KENNETH E. ZEIDERS  
SECRETARY

December 11, 1990

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

SUBJECT: Draft EIR, SCH #89080705

Dear Mr. Davis:

Our District delivers State Water Project (SWP) water to agricultural lands in Kings County; the SWP is our only water supply and our District is generally water deficient. As discussed in the Draft EIR prepared for LA Department of Water & Power and Inyo County, SWP contractors are subject to increasing water deficiencies.

Our District supports the proposed project and Draft EIR for the following reasons:

- 1 - The project is mutually acceptable to both LA Dept. of Water & Power and Inyo County.
- 2 - The project includes adequate environmental protection and considerations.
- 3 - The project increases the beneficial use of waters of the State.
- 4 - Without the project, demands on the SWP would be further increased, which would reduce allocations to SWP contractors throughout the State.

We appreciate the opportunity to comment on the Draft EIR.

Very truly,



James R. Provost  
Manager-Engineer

JRP:djs

CC: State Water Contractors



---

**RESPONSES TO COMMENTS**  
**LETTER B2**

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**RESPONSE B2-1**

Comment noted. Thank you for your interest and participation in the EIR process.





**Letter B3**

---

**Fort Independence Reservation**



FORT INDEPENDENCE RESERVATION

VERNON J. MILLER, Chairman

P.O. Box 67  
INDEPENDENCE, CA 93526  
(619) 878-2126

December 12, 1990

I, Vernon J. Miller, Tribal Chairman of the Fort Independence Reservation, a Federally recognized tribal government state the following:

We protest this E.I. R. as it relates to the City of Los Angeles Department of Water and Power, and the County of Inyo, as these two entities have no jurisdiction over entities such as our Reservation. The damage to air and water quality is effecting and damaging to our health and well being. We are subject to these conditions by increased pumping of ground water extraction and the dying vegetation and blowing dust. Our Reservation is located in the heart of the Owens Valley, 2 miles north of the town of Independence, California.

Damage has occurred on and in the vicinity of the Reservation. Lowering of domestic water wells and pumps on the Reservation. Increased pumping bills, lowering of pumps twice in past year has been a financial burden to the tribe.

The new mitigation wells, in the agreement between the City of Los Angeles and the County of Inyo are very damaging to the Tribe.

Have the requirements of C.E.Q.A. and other agencies for the protection of the environment been adhered too, or are they being allowed to be ignored?

The complete disregard for federally recognized Reservations, the right to participate or have a voice in this matter. The E.I. R. report on Indian Lands are not true. The tribes do have water rights. See deeds of record, U.S. to City of Los Angeles.

Water rights for Indians under Winter's Doctrine are missing or not addressed.

Water quantifications in terms of surface and ground water again not addressed. Fort Independence Water Rights in Oak Creek Decree of 1923, not identified.

I have given some records of fact to Paula Villa at the December 4, 1990 meeting of the Inyo County Board of Supervisors in Independence.

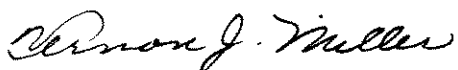
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December 12, 1990  
Page 2

Mr. John Davis of the firm of E.I.P. & associates was called sometime in the past year and informed by myself of the situation with tribal governments especially under title 25, Code of Federal Regulations. There are only 3 or 4 paragraphs in the report relating to Indians and Indian Water Rights.

If this statement is incorrect, please advise me so there can be no misunderstanding of our protest to this complex situation.

Sincerely,



Vernon J. Miller  
Tribal Chairman  
Fort Independence Indian Reservation

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## **RESPONSES TO COMMENTS LETTER B3**

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### **RESPONSE B3-1 THROUGH RESPONSE B3-6**

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 B4**

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**Coachella Valley Water District**







LETTER B-4

ESTABLISHED IN 1918 AS A PUBLIC AGENCY

## COACHELLA VALLEY WATER DISTRICT

POST OFFICE BOX 1058 • COACHELLA, CALIFORNIA 92236 • TELEPHONE (619) 398-2651

DIRECTORS  
RAYMOND R. RUMMONDS, PRESIDENT  
TELLIS CODEKAS, VICE PRESIDENT  
JOHN P. POWELL  
DOROTHY M. NICHOLS  
THEODORE J. FISH

OFFICERS  
THOMAS E. LEVY, GENERAL MANAGER-CHIEF ENGINEER  
BERNARDINE SUTTON, SECRETARY  
KEITH H. AINSWORTH, ASSISTANT GENERAL MANAGER  
REDWINE AND SHERRILL, ATTORNEYS

December 17, 1990

John Davis, senior vice president  
EIP Associates  
150 Spear Street, Suite 1500  
San Francisco, CA 94105

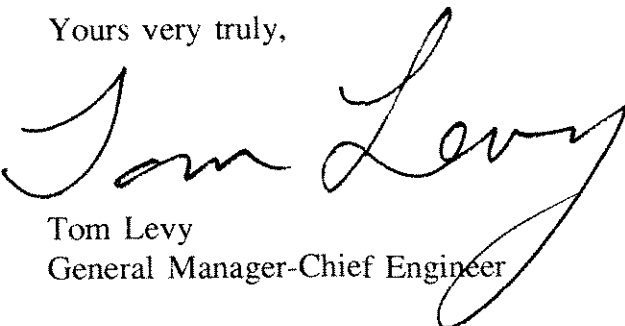
Dear Mr. Davis:

The Coachella Valley Water District supports the Los Angeles Department of Water & Power's draft EIR, *Water from the Owens Valley to Supply the Second Los Angeles Aqueduct*, dated September 1990.

The statewide negative impact, which would result to both nature and people, by adopting the "no project" alternative would be an unacceptable environmental loss. With an incomplete State Water Project trying to meet much of the needs of urban California, an average annual additional drain on the system of 42,000 acre-feet by the people of Los Angeles would be a difficult burden for the rest of the state's water users to bear. That will be required unless Owens Valley water is made available to the Second Los Angeles Aqueduct.

We support the draft EIR and urge its acceptance.

Yours very truly,



Tom Levy  
General Manager-Chief Engineer

DCM

cc: Dennis Williams, LADWP  
State Water Contractors

TRUE CONSERVATION  
USE WATER WISELY



---

**RESPONSES TO COMMENTS**  
**LETTER B4**

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**RESPONSE B4-1**

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.

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**Letter B5**

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**Inyo-Mono County Farm Bureau**





**INYO-MONO  
County  
Farm  
Bureau**

218 S. Main St. Suite D1 Bishop, CA 93514

January 14, 1990

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

RE: Draft EIR of Inyo Co/LADWP Long-Term Water Agreement Livestock Grazing

Dear Mr Davis:

The agricultural economy represents a large portion of the private economic base of the Owens Valley. Livestock enterprises make up a considerable portion of this agricultural economy. This is a true economy, based upon the sale of goods and services and is not a product of governmental "transfer payments" or other non-productive elements. This economy, therefore, needs to be treated respectfully with a minimum of emotionalism.

The grazing resource of the Valley has been historically well managed by LADWP. In fact, a survey of ranchers would indicate that their private lands are more efficiently and effectively managed than Federal Lands managed by the US Forest Service or the Bureau of Land Management.


The Inyo County Board of Supervisors has also been on record for many years as saying that they have no expertise in the matter and no interest in the grazing management of the Valley.

The Inyo-Mono County Farm Bureau opposes any inclusion of grazing management policies on privately held LADWP lands by the US Forest Service, Bureau of Land Management, or Inyo County.

We support the grazing section of the draft EIR (Chapter 77, Page 6) which keeps grazing management under the exclusive control of the LADWP.

We also recommend that the local Farm Advisor be included in any technical meetings concerning livestock grazing (Chapter 5, Page 6).

Sincerely,

  
Martin C. Andrews, President





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## **RESPONSES TO COMMENTS**

### **LETTER B5**

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#### **RESPONSE B5-1**

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



**Letter B6**

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**Inyo County Office of Education**



# INYO COUNTY OFFICE OF EDUCATION

LETTER B-6

COUNTY BOARD  
OF EDUCATION

Ken Baker  
County Superintendent of Schools

Jeannette Graves  
Alicia J. James  
Catherine Lutze  
Emilie Martin  
David Roberts

January 23, 1991

RECEIVED  
JAN 30 1991  
COUNTY BOARD OF EDUCATION

Gentlemen,

As expressed in the comments from the BLM, the Inyo County Office of Education agrees on the use of environmental education as a means of mitigation. Current effort is being placed in expanding the Inyo County Office of Education Environmental Education Program to reach high school students in the Los Angeles and Inlands area. This would be an excellent opportunity for the LADWP to get involved, locally, in raising awareness of water related issues to the population it serves.

The program is in its initial stages. Presently, many local state and federal agencies have expressed interest in the project. With combined efforts we could offer a quality environmental education experience focusing on water use and management.

We invite you to participate wholeheartedly in this project, and look forward to continued cooperative effort with the LADWP.

Sincerely,

*Ken Baker*

Ken Baker, Superintendent  
Inyo County Office of Education

*Linda Keating*

Linda Keating, Director  
Inyo County Environmental Education





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**RESPONSES TO COMMENTS**  
**LETTER B6**

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**RESPONSE B6-1**

The water conservation education program is a good concept, and Los Angeles and Inyo County would be pleased to meet with BLM and the County Superintendent to discuss it. Please also refer to response to master comment AL-3 for a discussion of water conservation by the City of Los Angeles.





**Letter B7**

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**County of Inyo, Department of Health Services**



LETTER B-7

ROBERT L. KENNEDY, R.S.  
Director, Environmental Health



(619) 878-2411  
Fax #(619) 878-2542

COUNTY OF INYO  
DEPARTMENT OF HEALTH SERVICES  
P. O. DRAWER H  
INDEPENDENCE, CALIFORNIA 93526

January 31, 1991

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

Dear Sirs:

This is an ammendment to the letter and comment summary sent to you on January 28, 1991. Please discard that information dated January 25, 1991, and accept this as the correct documentation.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Robert L. Kennedy".

Robert L. Kennedy  
Environmental Health Director

cc: Greg James, Inyo County Water Department

sd91 ltr.deir

ROBERT L. KENNEDY, R.S.  
Director, Environmental Health



(619) 878-2411  
Fax #(619) 878-2542

COUNTY OF INYO  
DEPARTMENT OF HEALTH SERVICES  
P. O. DRAWER H  
INDEPENDENCE, CALIFORNIA 93526

January 25, 1991

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

Dear Sirs:

Enclosed are comments from the Inyo County Environmental Health Services regarding the:

Draft Environmental Impact Report  
"Water From The Owens Valley To Supply The Second  
Los Angeles Aqueduct."  
1970 - 1990  
1990 Onward. Pursuant To A Long-Term Groundwater  
Management Plan.

Please note that Inyo County Environmental Health Services consists of three divisions and two of them Owens Valley Mosquito Abatement District (OVMAD), and Environmental Health (EH) have submitted their comments.

|       |               |
|-------|---------------|
| OVMAD | pages 1 to 8  |
| EH    | Pages 9 to 13 |

If you have any questions, please feel free to contact me.

Very truly yours,

  
Robert L. Kennedy  
Environmental Health Director

cc: Greg James, Inyo County Water Department

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OWENS VALLEY MOSQUITO CONTROL REVIEW OF THE DRAFT ENVIRONMENTAL  
IMPACT REPORT

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I.

OVMA D COMMENT SUMMARY

The Owens Valley Mosquito Abatement District's (district) review of the Draft Environmental Impact Report (DEIR) "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct" focuses on those projects which have caused or may result in an increase in mosquito breeding sources within the boundaries of the district. Depending on source proximity to population centers, certain of these projects have the potential of creating varying degrees of public health and nuisance related impacts for which additional or alternative abatement measures may need to be developed.

The district has identified five projects within the DEIR that it will comment on. Each has the potential of creating significant public health and nuisance related impacts for which economical and environmentally acceptable abatement measures should be pursued. Not in order of importance they include, A) Enhancement/Mitigation and LADWP Environmental Projects B) Groundwater Recharge Facilities and Improvements, C) Rehabilitation and Expansion of Parks and Campgrounds D) Water releases to the Owens River below Pleasant Valley Reservoir. E) The Lower Owens River Project.

1 Recognizing the value and importance of these projects, the district wishes to make it perfectly clear that it is in no way opposed to nor does it wish to negatively influence the goals for which they were established. We do, however, foresee the need to become directly involved in a review of certain existing projects and the planning and implementation of future proposed projects outlined in the DEIR. It is particularly important that these existing and future water management projects do not adversely affect the districts present ability to provide an acceptable level of service under current funding and operational constraints. Through this process the district, in cooperation with the Technical Advisory Committee and other public and private sector participants, would establish integrated mosquito control measures that would effectively reduce or limit mosquito development while maintaining the integrity required of the project.

## II.

### HISTORY AND FUNCTION OF THE DISTRICT

In November of 1984 voters of Inyo County overwhelmingly endorsed an advisory ballot measure calling for the formation of a mosquito abatement district whose boundaries included the Owens Valley. The need to create this district was founded on 1) the existence of extensive, documented sources that had a long history of adult production, 2) the prevalence of species that were known vectors of mosquito-borne diseases, 3) financial constraints which prevented the County from providing similar services through the general fund budget, 4) the need to provide services valley-wide and 5) a continued and important need to control mosquitoes in the Owens Valley.

The district, which was officially established in March of 1985, is governed by the Inyo County Board of Supervisors, who serve as the district's Board of Trustees. The Trustees exercise the powers of the district as set forth in provisions of the California Health and Safety Code and California Government Code. Presently the district operates as a special wing of the Inyo County Environmental Health Department and provides control services within a 1700 square mile territory encompassing the Owens Valley, Round Valley and Bishop and Rock Creek Recreational areas.

Through an integrated pest management program the district strives to control significant mosquito populations at levels considered acceptable from both a public health and pest/nuisance standpoint. Funding to support district operations is provided through service charges that are established by the Board of Trustees and levied against developed and undeveloped properties within the district boundaries. No alternative sources of operating revenues are presently available to the district.

### III.

#### DISCUSSION OF PROJECT IMPACTS AND SUGGESTED ABATEMENT MEASURES

##### A. ENHANCEMENT/MITIGATION AND LADWP ENVIRONMENTAL PROJECTS

Between 1970 & 1990 numerous enhancement/mitigation and environmental projects were established throughout the Owens Valley. Over the past 7 years the district has observed that many of these projects produce or have the potential for producing large mosquito populations. The impacts associated with these projects are two fold. Some of these projects, by their nature, produce mosquito populations which cause public health and nuisance related impacts. These impacts in turn must be mitigated by the district within a set budget. As more of these projects come on line, it becomes exceedingly difficult to provide the level of control that the district constituents have come to expect.

The district does not oppose nor does it wish to negatively influence existing or future projects associated with either of these programs. We are concerned, however, that conventional mosquito control measures utilized in the past may soon be rendered obsolete. As a result of skyrocketing chemical costs, insecticide resistance, label restrictions, withdrawal of insecticides from the market and, growing public awareness about the effects insecticides may have on the environment, the district is faced with developing alternative control measures which will provide the level of control desired.

2

Following is a list of those enhancement/mitigation and LADWP environmental projects that are known producers of large mosquito populations. On their own or in combination with other sources, each is capable of causing significant public health and nuisance related impacts. In consideration of the aforementioned financial, operational, and environmental constraints, the district recommends that the following proposed mitigation measures be adopted for each project.



# LADWP ENVIRONMENTAL AND ENHANCEMENT/MITIGATION PROJECT IMPACTS 1970 to 1990

| Project        | Page Number        | Impact(s) and Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Proposed Mitigation                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Farmers Pond:  | 5-19               | This source is known to produce significant mosquito populations. These mosquitoes are known vectors of St. Louis, Western Equine and California Encephalitis Virus. Left uncontrolled a large percentage of hatched adults migrate into the northeasterly portion of Bishop and Laws where they pose public health and nuisance related impacts.                                                                                                                           | 1) LADWP to notify district within 2 days of water releases to pond.<br>2) LADWP, OVMAD and other concerned agencies to discuss feasibility of implementing water management oriented control measures.<br>3) If 2 is not feasible, pursue funding to conduct research on best available alternative treatment technology.<br>4) Provide conventional treatment during interim period. |
| Klondike Lake  | 4-21,5-19 and 5-20 | Intermittent flooding of surrounding wetlands between April and Nov. often result in significant mosquito hatches. Mosquitoes breeding in these sources are known vectors of St. Louis, Western Equine and California Encephalitis Virus and Malaria. Public health and nuisance impacts occur on-site as well as in the northern portions of Big Pine where large numbers migrate. Insecticides used in adulticiding operations contact surface water used for recreation. | 1) LADWP to notify OVMAD within 2 days of increasing inflows to lake<br>2) LADWP, OVMAD and other concerned agencies to discuss feasibility of implementing water management oriented control measures.<br>3) If 2 is not feasible pursue funding to conduct research on best available alternative treatment technology<br>4) Provide conventional treatment during interim period.   |
| Calvert Slough | 5-19               | The impacts, if any, that this project has in the Aberdeen area are unknown at this time. Calvert Slough may serve as the primary breeding site for <u>Anopheles freeborni</u> infestations which occur in and around Aberdeen early each spring. <u>Anopheles freeborni</u> is the primary vector of malaria in the Owens Valley.                                                                                                                                          | 1) District will conduct preliminary survey to determine extent of breeding activity.<br>2) If necessary,district will pursue funding to conduct research on best available alternative treatment technology for control of <u>Anopheles freeborni</u> in a pond environment                                                                                                           |

| <u>Project</u> | <u>Page Number</u> | <u>Impact(s) and Comments</u>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <u>Proposed Mitigations</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lone Pine Pond | 4-21, 5-19         | The impacts, if any, that this project has in the Lone Pine area are unknown at this time.                                                                                                                                                                                                                                                                                                                                                                     | <ol style="list-style-type: none"> <li>1) District will conduct preliminary survey to determine extent of breeding activity.</li> <li>2) If necessary district will pursue funding to conduct research on best available alternative treatment technology.</li> <li>3) Incorporate proposed mitigation measures as part of Lower Owens River Environmental Impact Report.</li> </ol>                                                                                                                                                                                                                        |
| Diaz Lake      | 5-19               | Significant hatches of mosquitoes are known to occur following periodic flooding of adjoining riparian areas. Mosquito species which breed in these sources are known vectors of St. Louis, Western Equine and California Encephalitis Virus and malaria. Public health & nuisance impacts occur on-site and in recreational/residential areas to the north and south. Insecticides used in adulticiding operations contact surface water used for recreation. | <ol style="list-style-type: none"> <li>1) LADWP to notify OVMAD within 2 days of Aqueduct releases that will result in source flooding.</li> <li>2) District will conduct preliminary survey during flooding event to determine extent of breeding activity.</li> <li>3) LADWP, OVMAD and other concerned agencies to discuss feasibility of implementing water management oriented control measures.</li> <li>4) If 2 is not feasible, pursue funding to conduct research on best available alternative treatment technology.</li> <li>5) Provide conventional treatment during interim period.</li> </ol> |

| <u>Project</u>                                            | <u>Page #</u>  | <u>Impact (s) and Comments</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <u>Proposed Mitigation</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Laws-Poleta<br>Native<br>Pasture Project                  | 4-21<br>5-20   | The impacts, if any, that this project may have in the Laws or Northeast Bishop area are unknown at this time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ol style="list-style-type: none"> <li>1) LADWP to notify OVMAD within 2 days of flood irrigation releases.</li> <li>2) District will conduct preliminary survey to determine extent of breeding activity.</li> <li>3) If necessary consider feasibility of implementing water management oriented control measures.</li> <li>4) If 2 is not feasible pursue funding to conduct research on best available alternative treatment technology.</li> <li>5) Provide conventional treatment during interim period.</li> </ol> |
| Independence Pasture<br>Lands and Springfield<br>Projects | 4-21 &<br>5-20 | To date this project has not resulted in the production of significant mosquito populations. This, most likely, is a result of irrigation techniques currently practiced by the project lessee. Mosquitoes breeding in these waters are known vectors of St. Louis, Western Equine and California Encephalitis Virus.                                                                                                                                                                                                                                                                                                     | <ol style="list-style-type: none"> <li>1) Because of its close proximity to Independence, the district will continue weekly surveillance at these sites. Deterioration of existing conditions may warrant implementation of alternative control measures.</li> <li>2) Measures aimed at eliminating tailwater ponding along the southeast edge of the project should be pursued.</li> </ol>                                                                                                                               |
| Richards and Van Norman<br>Fields                         | 4-21           | Intermittent flood irrigation at the Richards and Van Norman fields located along the easterly edge of Lone Pine has resulted in the formation of numerous mosquito breeding sources. Species breeding within these sources are known vectors of St. Louis, Western Equine and California Encephalitis Virus. Their close proximity to residential areas, schools and the proposed enhancement/mitigation sports complex project make these especially important from a control standpoint. The project lessee is working cooperatively with the district in an attempt to limit and/or reduce overall source production. | <ol style="list-style-type: none"> <li>1) LADWP to continue irrigation notification program established in 1990.</li> <li>2) LADWP, OVMAD and lessee to discuss feasibility of implementing additional water management oriented control measures.</li> <li>3) If 2 is not feasible, pursue funding to conduct research on best available alternative treatment technology.</li> <li>4) Provide conventional treatment if 2 or 3 are not feasible.</li> </ol>                                                             |

| <u>Project</u>                          | <u>Page#</u> | <u>Impact(s) and Comments</u>                                                                                                                                                                                                                                                                                                                                                                                                               | <u>Proposed Mitigation</u>                                                                |
|-----------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Lower Owens River<br>Rewatering Project | 5-21         | Alternate flooding and drying of mosquito breeding sources along the lower Owens River from April to November results in the production of significant mosquito populations. A large percentage of hatched adults are capable of migrating into nearby population centers where they cause a significant nuisance. Species originating from these sources are known vectors of St. Louis, Western Equine and California Encephalitis Virus. | 1) LADWP to notify OVMAD within 2 days of increased flow releases to lower river section. |

B. GROUNDWATER RECHARGE FACILITIES AND IMPROVEMENTS  
(pages 16-1 through 16-7 of DEIR)

3

The public health and nuisance related impacts, if any, associated with past water releases at the Laws and Big Pine Groundwater Recharge Facilities are unknown at this time. To determine whether or not these releases will be of concern in the future, surveys will need to be conducted at each site. Each survey will evaluate the extent and importance of the mosquito problem by determining:

- a) The species of mosquito which occur in the area and the relative numbers of each species.
- b) The level of mosquito annoyance which occurs throughout the areas that are within flight range of the breeding sources.
- c) What human or animal populations are affected.
- d) The history of mosquito-borne diseases in the area.
- e) Environmental factors affecting the problem.
- f) What operations are necessary to eliminate the sources or control the mosquitoes.
- g) Estimated cost of the control program.

Surveys would commence within three (3) days of initial water releases and continue, if necessary, throughout the flooding event. Should data collected as part of the survey substantiate the need for provision of control measures at either facility, the district will implement the following mitigation measures:

- 1) Request notification from LADWP within two (2) days of recharge releases.
- 2) Conduct meetings between LADWP and other concerned agencies to discuss feasibility of implementing water management oriented control measures.
- 3) If #2 is not feasible pursue funding to conduct research on best available alternative control technology.
- 4) Provide conventional treatment during interim period.

Construction of infiltration trenches at the Laws site will significantly reduce the potential for breeding activities by eliminating surface flooding.

## C. REHABILITATION AND EXPANSION OF PARKS AND CAMPGROUNDS

The district has not yet had the opportunity to review the "Parks Master Plan" which was recently completed by the Inyo County Parks and Recreation Department. As such, its comments will be limited to general information presented on pages 5-26 and 5-27 of the DEIR.

4

Prior to finalization of plans for the rehabilitation and expansion of parks and campgrounds in the Owens Valley and surrounding area consideration should be given to the public health and nuisance related impacts that mosquitoes may have on facility users and the role the district will play in providing control related services.

### 1. REHABILITATION OF EXISTING FACILITIES

During the spring and summer mosquito infestations at Pleasant Valley and Tinnemaha Campgrounds, cause a general nuisance and pose a potential health risk to the recreating public. Because of the nature of their use, their isolated locations and their proximity to numerous and sizable breeding sources, control services at this site have been less than those provided at other park and recreation facilities.

As mentioned previously, district operations are supported entirely by service charges levied against in-district property owners. Control efforts are consequently focused in areas where contributors are likely to receive the greatest overall benefit. At these two campgrounds, users are almost exclusively vacationers that do not contribute to the program. As such, it is difficult to justify control expenditures at these facilities when little or no direct benefits are derived by in-district customers. Other county park and campground sites do not fall into this category for one or both of the following reasons. 1) They are located in areas where continuous control is already provided (i.e. Baker Creek Campground). 2) They are frequently utilized by in district customers (i.e. Isaac Walton Park).

Should an equivalent level of service be desired at Pleasant Valley Campground and Tinnemaha Campground revenues other than those generated through the current service charge program will need to be provided.

## 2. EXPANSION FACILITIES AND PROGRAMS

Of all known mosquito breeding areas in the Owens Valley, those associated with river floodplain sources have the greatest potential for causing serious public health, nuisance and economic related impacts. Mosquitoes which breed in these sources hatch in large numbers and remain concentrated in the immediate vicinity for weeks at a time. During these infestation periods it is difficult to enjoy any form of river oriented recreational activity.

Resource limitations presently restrict district control efforts to strategic stretches of the river only. When left uncontrolled, mosquitoes originating from sources within these sites migrate into nearby population centers. Sources in these areas are large, numerous and difficult to access by ground. Control operations are consequently time consuming, labor intensive and expensive.

New facilities and programs developed within or in close proximity to these breeding areas would be susceptible to significant mosquito infestations between May and November. During these events the recreating public would be exposed to the full force of their impacts. Of particular concern to the district is the potential for disease transmission in younger and older segments of the population. Species which breed in these sources are capable of transmitting a number of human diseases including St. Louis and California Encephalitis Virus. Vacationers from outside the area would be especially vulnerable during these periods.

Limiting these impacts to levels considered acceptable by public health standards will require a cooperative effort between agencies participating in the planning process. If feasible, control strategies including but not limited to , low impact site locating, creative water management and ecological control should be considered as viable alternatives to more costly conventional control programs.

D. LADWP FLOW RELEASES BELOW PLEASANT VALLEY RESERVOIR

Mosquito breeding in Owens River floodplain sources below Pleasant Valley Reservoir have historically resulted in serious public health, nuisance and economic related impacts in the Owens Valley area.

To address these impacts the district prepared a draft plan entitled, "Mosquito Control on the Owens River" (plan), which was presented before the Technical Advisory Committee in November of 1989. Since that time, extended drought conditions and export decreases from the Mono Basin have resulted in a significant reduction in flow releases below Pleasant Valley Reservoir. Consequently, mosquito production in associated floodplain sources has been minor. During this period district resources have been sufficient to maintain an acceptable level of control. Efforts to implement alternative control measures, discussed in the plan, have therefore been put on hold.

6

In anticipation of an eventual return to more normal flow conditions and the mosquito breeding activity which typically follows, a concerted effort should be made in the near future to develop and implement a treatment program which meets, within reason, the criteria set forth in the attached plan.



## MOSQUITO CONTROL ON THE OWENS RIVER

### Existing Problem:

Mosquito breeding sources associated with the floodplain areas of the Owens River produce millions of mosquitoes. A great percentage of these populations pose a significant health threat to the public at large. As well as being potential vectors of disease, they also serve to cause intense annoyance and distress in both humans and animals. The resources needed to effectively control these populations are not presently available to the Owens Valley Mosquito Abatement District (OVMAD).

### Source of Problem:

Los Angeles Department of Water and Power (LADWP) controlled releases into that section of the Owens River below Pleasant Valley Reservoir often results in the formation of significant mosquito breeding sources. The size, number and viability of these sources is directly related to the volume of water released, the season in which it is released and the length of time for which the flows are maintained.

### Problem Resolution:

The objective of the "Owens River Mosquito Control Plan" will be to develop and implement a treatment program which meets all or most of the following criteria. Not in order of priority, they are:

- Maximize use of physical and biological control techniques and practices.
- Limits the use of pesticides which are potentially harmful to the Owens River Ecosystem.
- Prevents as much as possible the contamination of the Owens River as a drinking water supply.
- Makes use of those larvaciding and adulticiding materials which are specifically designed and labeled for use in the floodplain environment.
- Limits treatment to those sources which are known to be within flight range of population centers or high use recreational areas.
- Cost effective.
- Manageable by district staff.

- Provides for an acceptable interim treatment program.
- Avoids disruption of ongoing treatment programs at other sources.

Program Participants:

Owens Valley Mosquito Abatement District (OVMAD)  
Los Angeles Department of Water and Power (LADWP)  
Inyo County Water Department (ICWD)  
University of California (UC)  
California Department of Fish and Game (CDFG)  
Inyo County Agricultural Commissioner (ICAC)  
California Mosquito and Vector Control Association (CMVCA)

## MOSQUITO CONTROL PROGRAM ALTERNATIVES FOR THE OWENS RIVER

Following is a brief overview of the control plan alternatives being considered for implementation. Alone or in combination they have the potential of effectively resolving the public health problems that arise following each river flooding episode.

We realize that they are oversimplified in this presentation and that much analysis will be required in order to determine their overall feasibility.

### Physical Control:

1. LADWP and other concerned agencies to consider the feasibility of revising current water management strategies. Program would limit, to the maximum extent possible the formation of floodplain sources during the mosquito development season (April 15 - November 1).

2. LADWP and other concerned agencies to consider feasibility of constructing berms or other physical barriers to prevent spillage onto any number of egg laden floodplain sources.

### Biological Control:

1. District in cooperation with other local and state agencies to determine feasibility of applying, by air or on foot Bacillus thurengiensis larvaciding granules. Granules would be placed in those sources which are known to contain eggs and that are within flight range of population centers and/or heavily frequented recreational sites. Application of these granules would be required after each flooding episode.

2. District in cooperation with other local and state agencies to consider the feasibility of implementing an ecological control program. Ecological control in this context is defined as the exploitation of ecological relationships to reduce the population size or production rate of a disease vector or pest organism.

### Chemical Control:

#### Larvaciding -

- District in cooperation with other local and state agencies to determine feasibility of utilizing 150 day time-released internal growth regulating material. Based on pre-season water release forecasts, this material would be placed in

predetermined sources in advance of anticipated spring or early summer floods. Would require only one application per season.

- District in cooperation with other local and state agencies to determine the applicability of other chemical larvaciding agents which are presently labeled for use in the floodplain environment.

#### Adulticiding -

- A program to improve old and/or develop new access roads into adult harboring areas will need to be implemented if adulticiding is to become the primary mechanism for controlling mosquitoes on the river. As wind direction, vegetation density and distance from the target area vary from treatment to treatment, roads on both sides of the river will be required to assure that the applied material will reach the harboring areas.
- District in cooperation with other local and state agencies to determine feasibility of applying adulticiding material by aircraft.
- District in cooperation with local and state agencies to determine feasibility of applying adulticiding materials by boat.

D. E. BABB

FEB 07 1991

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PO3

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Preferred Plan for the Control of Aedes melanimon  
on the Owens River

The following proposed preferable plan does not include provisions for the utilization of physical and/or adulticiding control measures. While these control measures are not incorporated below, they should be considered in the overall treatment program.

Plan Components:

1. Determine flight range and dispersion patterns of Aedes melanimon from its river breeding sources. Concentrate efforts along sections of river that are within close proximity to Laws, Bishop, Wilkerson Ranch and Big Pine. Note: Determine same for Aberdeen, Independence and Lone Pine following implementation of proposed Lower Owens River Project.

Agencies involved: OVMAD, UC, CMVCA.

2. Locate and map all floodplain breeding areas which are within flight range of population centers listed in #1.

Agencies involved: OVMAD, UC, CMVCA

3. Survey, map and field identify those floodplain sources which are within flight range of population centers listed in #1.

Agencies involved: OVMAD, LADWP.

4. Establish Owens River flow rate monitoring stations in strategic locations.

Agencies involved: OVMAD, LADWP.

5. Determine at what flow rates the subject floodplains will receive floodwater. Determine surface area coverage at different flow rates. Determine at what flow rate the source becomes a problem.

Agencies involved: OVMAD, LADWP, ICWD.

6. Develop a mapping system which shows source locations and indicate on these maps the flow rate at which the source will begin to fill. Source number on map to correspond with field identification tag.

Agencies involved: OVMAD, LADWP, ICWD.

7. Investigate cost effectiveness of different larvaciding products under different flow scenarios. Determine most cost effective application methods for each of the above.

Agencies involved: OVMAD, UC, CMVCA.

8. Determine environmental impacts associated with the short and/or long term application of any and all larvaciding materials to be used.

Agencies involved: OVMAD, UC, CMVCA, ICAC.

9. Establish a communication system with LADWP that will:

- a. provide for early forecast of anticipated spring and summer flow releases and
- b. provide for daily, weekly or monthly updates on flow changes.

Agencies involved: OVMAD, LADWP.

#### E. LOWER OWENS RIVER PROJECT

District comments on the Lower Owens River Project, if any, will be submitted following a review of the Environmental Impact Report to be prepared and circulated for public review at a later date.

We would like to take this opportunity, however, to reiterate the need for district participation throughout the project planning process. In cooperation with the project's technical advisory staff, alternatives to conventional mosquito control measures can be evaluated for their possible inclusion in the project's water management scheme.

7

ENVIRONMENTAL HEALTH COMMENTS ON THE DEIR

DEIR 16 ANCILLARY FACILITIES  
16.3 NEW WELLS

Inyo County Environmental Health fully understands the benefits of these proposed wells and has no intention of opposing their creation. We feel that they all can be safely installed and operated if the following concerns are addressed and mitigated.

LAWS, BIG PINE, INDEPENDENCE, SYMMES-BAIRS,  
AND LONE PINE

On pages 16-31 it is stated that a goal of the Agreement is to manage groundwater pumping to avoid causing significant adverse impacts to private (non-Los Angeles owned) wells. Also on page 16-32, Impact 16-6 "It is not expected that water quality or quantity in private wells on the Bishop Cone would be adversely impacted due to a lowering of the water table associated with pumping the new wells on the Cone."

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The proposed mitigations 16-6 and 16-7 for both the Bishop Cone and Big Pine are solely concerned with monitoring groundwater level and not quality (Green Book Section 4). If a private well's groundwater level is being affected by this project then it should be annually monitored for potential water quality changes (CCR, Title 22, California Domestic Water Quality and Monitoring Regulations).

Most residential wells are not pumped at rates that normally will effect groundwater levels in neighboring wells. Therefore, we feel if any private wells are impacted then annual Title 22 monitoring should be provided.

As far as the Bishop Cone we have more significant concerns beyond Title 22 analysis. The following will explain our attention to the five wells in the Bishop Cone.



## BISHOP AREA

The 5 new well sites in the Bishop area do raise some significant concerns with this department. First, it should be stated that the shallow ground water quality in the City of Bishop is of questionable quality overall. Environmental Health has documentation from numerous monitoring wells and excavations of soil/ground water contamination from the following chemicals:

1. Benzene
2. Toluene
3. Xylene
4. Ethylbenzene
5. Total Petroleum Hydrocarbons (as diesel)
6. Trichloroethylene (TCE)
7. Tetrachloroethylene (PCE)

Our major concern is that these pollutants have not been addressed regionally, but rather they have been observed on specific sites which are not representative of the entire City of Bishop as a whole. In addition, the outlying areas of Bishop (West Bishop, Lazy A, Dixon, Bishop Golf Course, Bishop Sunland Solid Waste Site, etc.) also have not been evaluated as a whole. Therefore this entire region could have unknown locations of organic chemical contamination, originating from present and past petroleum service stations, commercial businesses using hazardous materials, agricultural uses of pesticides, septic tank and sewage systems, landfill operations, etc. Therefore, many areas within the City of Bishop, and outlying, have not been evaluated on their present state of ground water quality. The construction of these 5 new wells could initiate possible vertical migration of pollutants, and if pumped, the drawdown of the shallow ground water table could also have a dramatic effect on movement pollutants presently floating on top of, or already in mixture with the groundwater.

This Department recommends that this potential impact be mitigated in the following manner:

Evaluate regionally the extent horizontally and vertically of the known pollution plumes throughout the City limits of Bishop and any other associated areas concerning the five proposed well locations. This evaluation would look at the region as a whole and define the extent of any contamination (outline the plumes) in the shallow ground water and deeper water levels. Monitoring wells could be installed and soil/water samples pulled and analyzed for the previous stated pollutants. From this, a contour map showing degrees of contamination could be developed.

12

With this evaluation, complete remedial actions could be initiated to reduce the extent of pollution and sites for the 5 new wells could be located so as to not impact groundwater quality.

13

At such time that the locations and proposed pumping levels are established, a final evaluation of the drawdown's direct and indirect impacts should be addressed. Will these newly established cones of depression allow pollutants to be drawn down into these wells, or other private and community wells?

A Hydrologic Evaluation could be conducted on the proposed well sites and to existing wells to ascertain any well interference potential, ground water directional flow, and velocity, and any other hydrological effect that may occur and be detrimental to water quality from the pumping. It has been a theoretical concern of this department that reduction of the hydrological pressure on the perched aquifer under Bishop, from drought or pumping, which would lower depth to groundwater, allows pollutants to move down into more permeable soil layers and, therefore, allows greater migration of these pollutants vertically and horizontally.

If these new wells are evaluated as outlined previously and their sphere of impact is clearly determined and mitigated then this department would not have any further concerns with this project. Please note that there are many technical procedures available today and, therefore, what I have suggested may not be the only way to proceed in achieving the same conclusions.

REHABILITATION AND EXPANSION OF PARKS AND CAMPGROUNDS ON LOS ANGELES-OWNED LANDS THAT ARE LEASED AND OPERATED BY THE COUNTY OF INYO.

II. DEIR 5 PROPOSED PROJECT  
5.8 ELEMENTS SUBJECT TO FUTURE CEQA REVIEW

Inyo County Environmental is in full support of the rehabilitation of existing parks and the expansion of new recreational facilities. Past experience involving drinking water, sewage disposal, and recreational health issues, have been professionally addressed by Inyo County Building and Safety and Parks departments. I therefore feel very confident that these changes and renovations will be easily coordinated through our office as usual business.

However, I do have some specific concerns that I would like to raise at this time. First, the water system at Diaz Lake contains a main transmission line running from west to east underneath the lake. Parts of this plastic (PVC) line are exposed at the ground surface along the west and east shorelines as well as in areas underwater along the lake bottom. The area exposed along the west shoreline is right in the middle of a beach that is heavily used by recreationists during the summer month. The potential degradation of the exposed sections of the pipeline by ultraviolet light, as well as that for vandalism in the beach areas and underwater poses a threat of the system's capability to provide a continual supply of potable water.

Secondly, Diaz Lake has been a recreational center in Lone Pine for many years, attracting many people during the summer months and is widely used for swimming and aquatic activities. My office has been called upon periodically to assess water quality complaints and public health concerns. Some of these complaints have ranged from cloudy - turbid waters, rashes on legs after swimming or wading, various degrees of health symptoms after swimming activities, and possible cases of Giardiasis. As of this date, no specific causative agent(s) for any of these symptoms or conditions has been isolated or confirmed in Diaz Lake.

Relating to this, our concerns are basically two-fold: the issue of turbidity/water clarity and the fact that Diaz Lake is not a "flow-through" body-of-water. It has no outflow and there is no naturally or artificially induced turn-over as would be required in a commercial swimming pool. Regarding the first issue, it could probably be addressed by public notification and possible posting in multiple locations around the lake with proper warning messages. The second issue is much greater in magnitude because

of the predetermined flow scheme of the lake. Without the processes of dilution or outflow, many types of microbiological contaminants from human (user) and associated animal sources are allowed to concentrate in Diaz Lake - particularly during the summer months. A possible solution would be to encourage dilution and turnover in the lake by diverting volumes of water from the Los Angeles aqueduct into one end of the lake and returning equivalent volumes taken from the other end of the lake back to the aqueduct. This would involve the construction of a catch basin, pump, and return line to the aqueduct (the inflow mechanism already exists).

Other possible solutions to this problem may also exist, and it would be the direction of the Inyo County Environmental Health Services to become involved and coordinated with the technical group in whatever is necessary to reach the proper resolution.

Another recreational facility of concern is Klondike. Klondike has a similar water clarity concern like Diaz. The posting of warning signs bringing attention to the clarity problem should be considered. However, unlike Diaz, Klondike is designed as a flow-through body of water with a naturally occurring turnover. There is no significant history of water quality complaints. The flow-through condition must be maintained.

Finally, regarding the expansion and renovation of parks and recreational facilities in general, these activities will involve expansions, improvements and modifications to the water systems and on-site sewage disposal facilities. Because of ever changing technologies, regulations, and the fact that environmental conditions may not always be ideal, any expansion or renovation of parks and/or recreational facilities should be discussed and reviewed by the Inyo County Environmental Health Services before any plans are officially formulated and permits are issued.

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## **RESPONSES TO COMMENTS**

### **LETTER B7**

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#### **RESPONSE B7-1**

LADWP routinely cooperates with the County of Inyo Department of Health Services and the Owens Valley Mosquito Abatement District on issues related to water management and mosquito control and public health. This process has been effective in minimizing potential public health problems associated with water management activities. The proposed Agreement will not change LADWP procedures involving notification of County agencies of water management activities, and/or coordination with County staff. In the future, these agencies will have the opportunity to provide input into the development and implementation of mitigation plans and future projects that could affect mosquito control or public health.

#### **RESPONSE B7-2**

The mitigation measures identified in this comment are worthwhile and will be considered in coordination with LADWP's cooperative activities with County agencies; however, they are not appropriate as mitigation measures under the project, as no finding of significant effect has been made.

#### **RESPONSE B7-3**

The suggestions provided in this comment are worthwhile and will be considered. As described above in response to comment B7-1, LADWP will continue to cooperate with the Owens Valley Mosquito Abatement District as needed.

#### **RESPONSE B7-4**

Please refer to response to comment B7-1 above.

RESPONSE B7-5

Please refer to response to comment B7-1 above.

RESPONSE B7-6

Please refer to response to comment B7-1 above.

RESPONSE B7-7

Please refer to response to comment B7-1 above.

RESPONSE B7-8

It is the goal of the Agreement to prevent changes in water quality in non-LADWP wells. Please refer to Section III.G of the Agreement (page B-15); and Chapter 16, Impact and Mitigation Measure 16-6 of the Draft EIR.

RESPONSE B7-9 THROUGH RESPONSE B7-13

The pollutants listed and the potential for movement are valid concerns and are noted. The Technical Group is aware of the pollution problem cited in this comment. The Agreement and Green Book contain provisions regarding the siting of new wells and management of groundwater pumping to avoid effects on water quality. Section IV.B (page 97) of the Green Book sets forth the guidelines for siting and activating new wells. In view of the concerns expressed in this comment, new wells on the Bishop Cone would be sited, and all wells would be operated to avoid aggravating the existing pollution problem. The primary means of avoiding the problem would be through management of groundwater pumping based on actual and projected fluctuations in water tables.

RESPONSE B7-14

The issue raised in this comment is not part of the project, but has been brought to the attention of the Inyo County Parks and Recreation Department.

**RESPONSE B7-15**

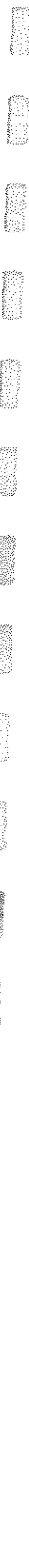
Please see response to comment B7-14 above.

**RESPONSE B7-16**

Comment noted.

**RESPONSE B7-17**

Please see response to comment B7-1 above; as described in Chapter 5, Proposed Project, any expansion or rehabilitation of existing parks, including Diaz Lake, will be addressed in future environmental reviews as allowed under CEQA.





**Letter B8**

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**Counties of Inyo-Mono, Office of Agricultural Commissioner**





*Counties of Inyo-Mono*

DONALD R. MUSE  
AGRICULTURAL COMMISSIONER  
DIRECTOR OF WEIGHTS AND MEASURES

207 West South Street • Bishop • California • 93514  
Telephone (619) 873-7860 FAX (619) 872-1610



January 25, 1991

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

Attn: John Davis  
Senior Vice President

SUBJECT: Draft Environmental Impact Report, Los Angeles  
Department of Water and Power and Inyo County

Dear Mr. Davis:

The following comments are submitted with respect to the Draft Environmental Impact Report (DEIR) presented by the City of Los Angeles, Department of Water and Power (LADWP) and the County of Inyo. The primary emphasis will be on agricultural land use.

LIVESTOCK PRODUCTION 1970 - 1990

IMPACT

PAGE 14-17, SECTION 14-3 CHANGES IN IRRIGATION AND LEASING PRACTICES OF THE PROPOSED PROJECT HAD LITTLE EFFECT ON OVERALL LIVESTOCK PRODUCTION IN OWENS VALLEY.

Livestock can and has greatly been affected due to several variables including precipitation resulting in available irrigation.

The attached graphs depict the relationship between valley precipitation and total cattle numbers from 1964 through 1990. 1990 is a preliminary estimate until I have completed actual totals for the Annual Crop Report. This graph shows only an approximate relationship between water and cattle, however, if one is to draw any conclusions from this data, it would be that cattle production in Inyo County is dependent on the natural resources in that there is an approximate delay of one year between increases and decreases in precipitation and cattle numbers.

In the period from 1986 to the present, an abnormally large decrease in cattle numbers appears due to extended drought conditions with "lag time" for further reductions expected.

3 — Fluctuations due to other specific variables, including: The price of cattle and calves in any given year, the delay in rebuilding cattle herds, how much water spreading was done, and finally, the amount of supplemental feeding that took place must be considered.

In regards to cattle grazing practices in general, it should be mentioned here that the standard practice of allowing large portions of the Owens Valley grazing land to be untouched during a majority of the growing season has been practiced by Owens Valley ranchers since grazing was first established.

4 — All major lessees of LADWP grazing land in the Owens Valley have "summer grazing leases" located in Mono County as well as permits with Bureau of Land Management and the U.S. Forest Service. This rotation enables the producer to rest the land seasonally. This practice is recognized and utilized as a primary component to proper land management.

#### LAND USE AND ECONOMIC DEVELOPMENT

##### PAGE 14-3 SECTION 14-2 RANCH LEASES

All leases include a requirement that lessees notify LADWP prior to the application of any pesticides (herbicides, insecticides) and aerial fertilizing.

#### 5 — PROPOSED PROJECTS

##### PAGE 5-23 SALT CEDAR CONTROL PROGRAM

All noxious weed species should be considered in an overall program for properly maintaining the grazing lands.

It should be noted here that exotic species introductions tend to spread due to lack of natural controls. Simply leaving the range as is will not lead to restoration of natural habitat but may on the contrary allow exotics to further increase their range. This in turn affects the amount of feed available to both livestock and wildlife.

In the case of some species, grazing is the best assurance of continuing native plant communities. Exotic plants that have established themselves and present a threat to native plant communities are: Canada Thistle, Yellow Star Thistle, Halogeton, Dalmatian Toadflax, Camel Thorn, and Perennial Pepper Cress, all of which have been subject to control efforts in Inyo County.

EIP Associates  
Page 3  
January 25, 1991

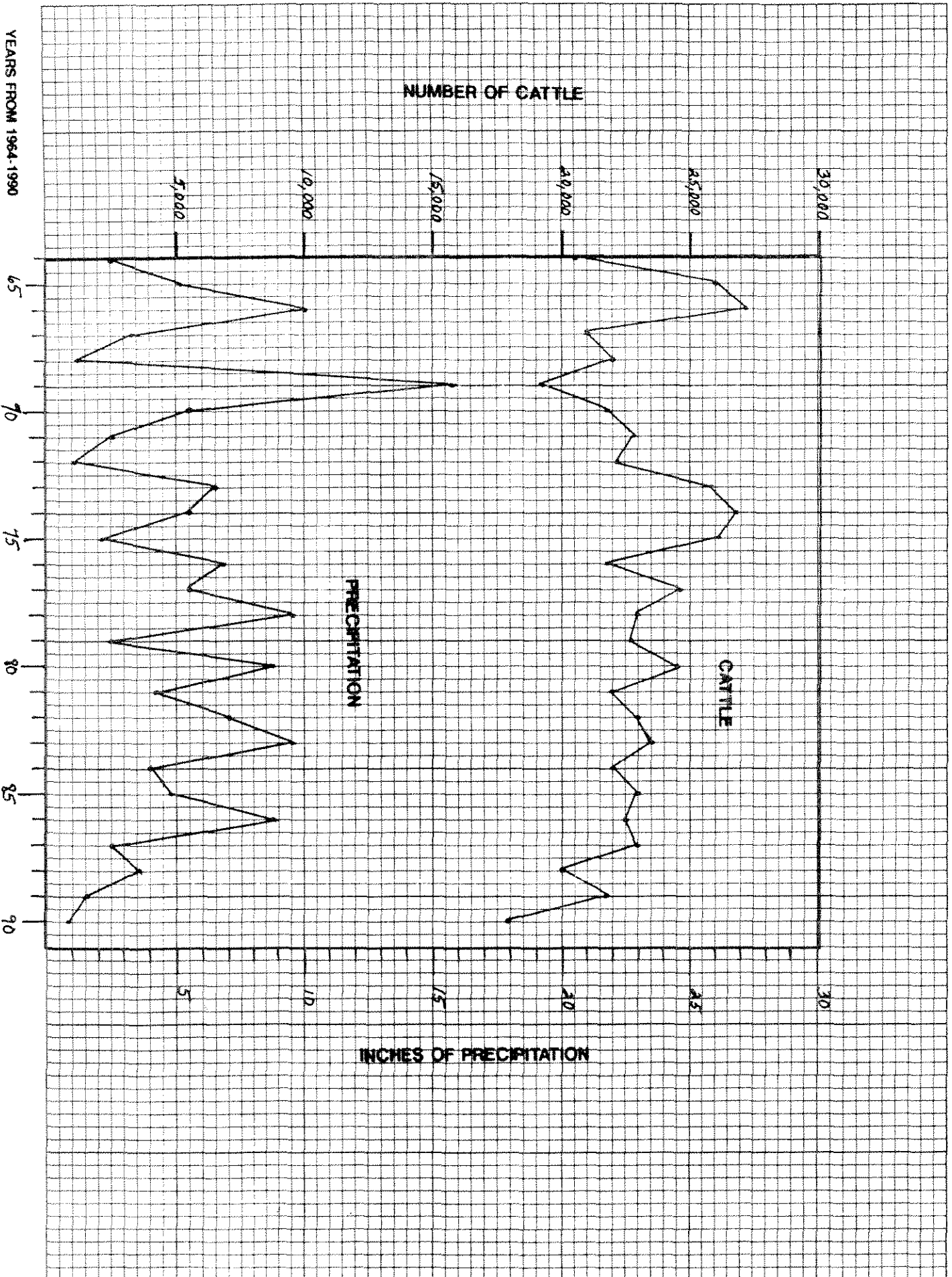
Thank you for this opportunity to comment on the DEIR as prepared by EIP Associates. It should be noted that although our office did provide crop report statistics to the DEIR, we would also be willing to further aid in a cooperative understanding of the agricultural industry of Inyo County.

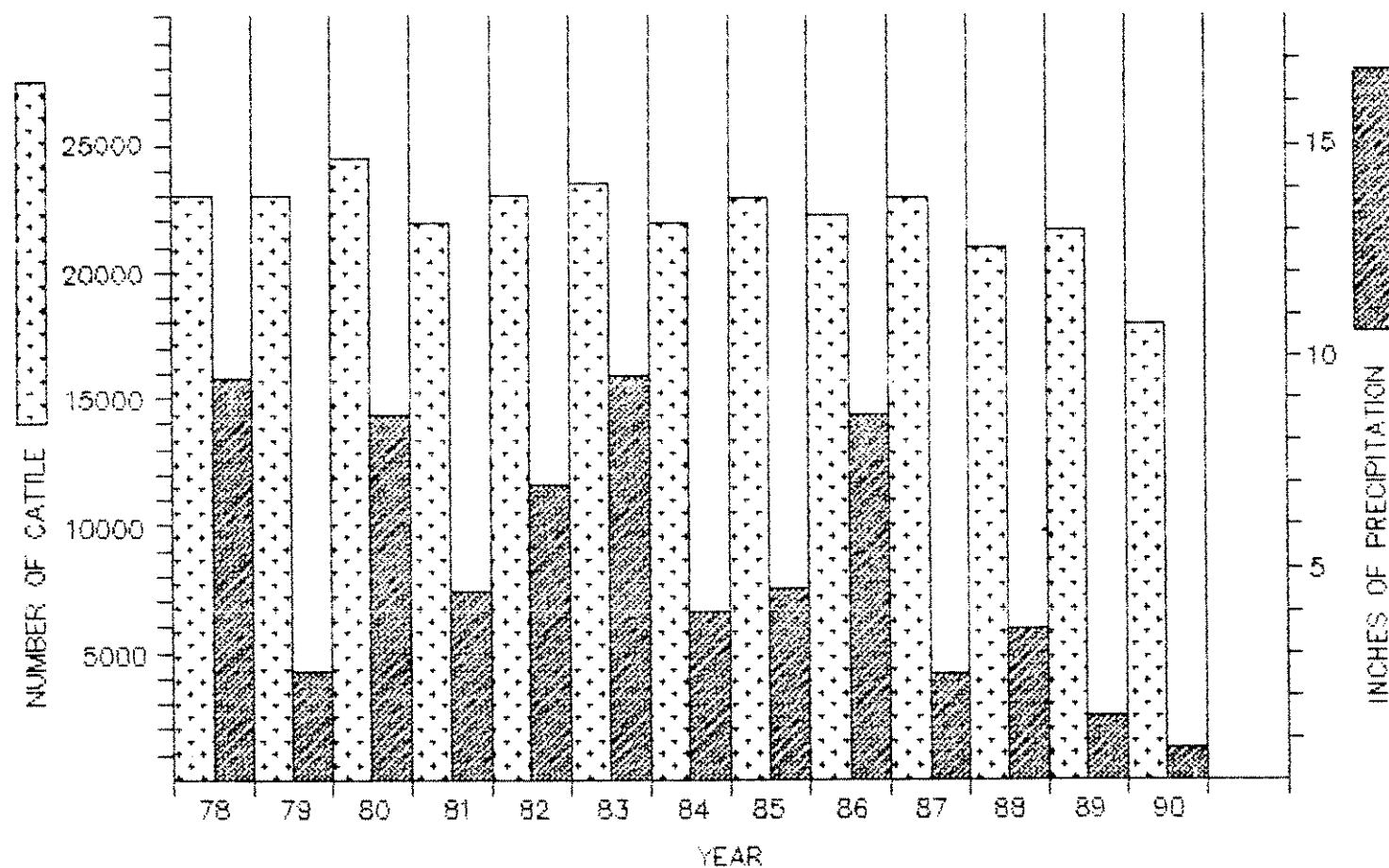
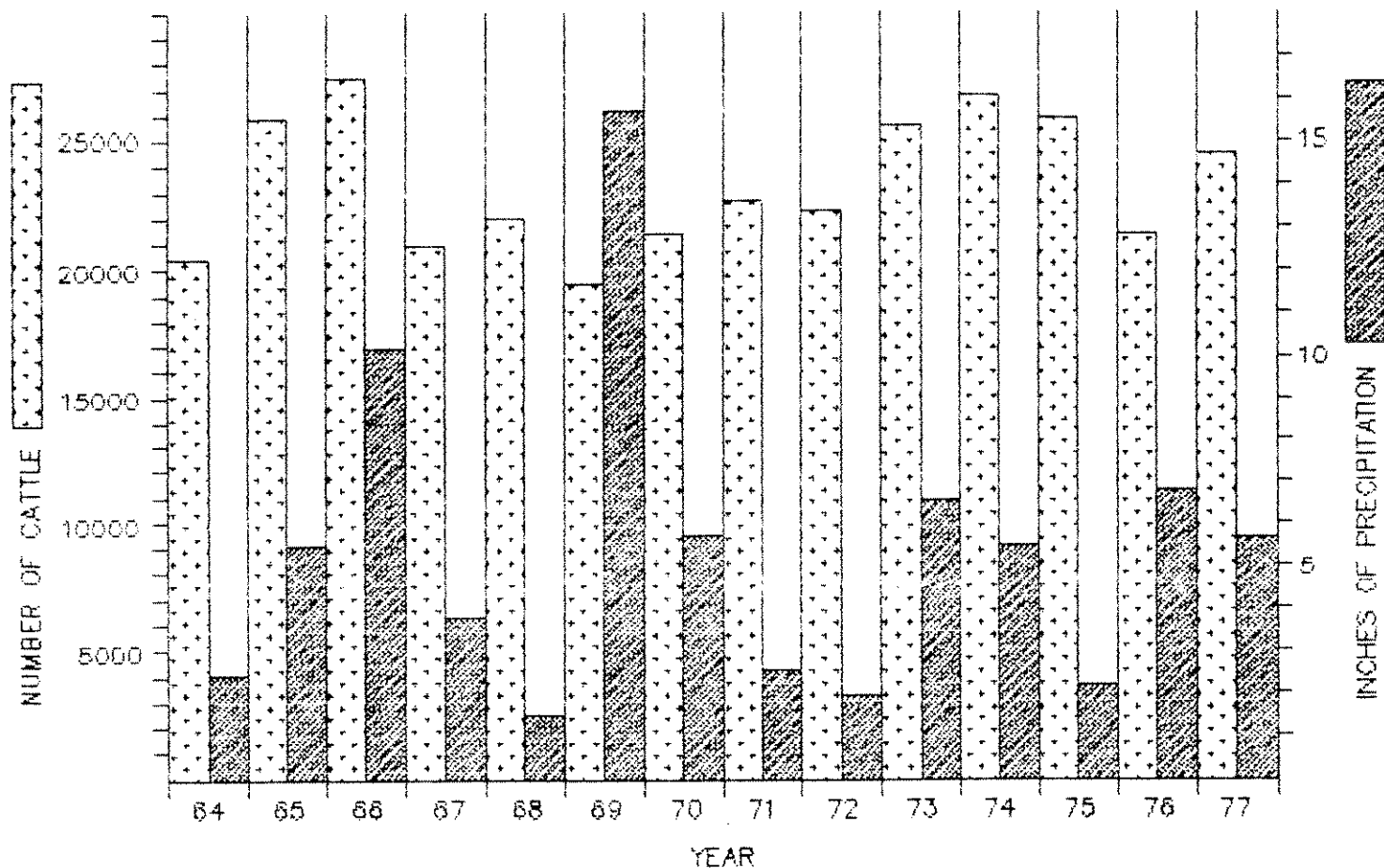
Sincerely,



George L. Milovich  
Deputy Director  
to Donald R. Muse  
Agricultural Commissioner

GLM/rle  
Encls.









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**RESPONSES TO COMMENTS**  
**LETTER B8**

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**RESPONSE B8-1 THROUGH RESPONSE B8-5**

Comments noted. Thank you for your interest and participation in the EIR process.



**Letter B9**

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**Inyo County Water Commissioner**

1. Introduction

2. Background

3. Methodology

4. Results

5. Discussion

6. Conclusion

7. References

8. Appendix

9. Glossary

10. Index

11. Acknowledgments

12. Author Biographies

13. Abstract

14. Keywords

15. Correspondence

16. Contact Information

17. Declaration of Interest

18. Funding

19. Data Availability

20. Ethics Approval

## LETTER B-9

Raymond F. Gray  
Inyo County Water Commissioner  
373 Mt. Tom Road  
Bishop, CA 93514  
Jan. 26, 1991

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

Dear Mr. Davis:

This letter is in response to your draft environmental impact report entitled "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct" that you presented here in a number of town meetings in the Owens Valley. I sat through all of the meetings and noted that many important omissions were noted by the public. However, the omissions are in your files and I am certain you will respond to them.

Being a county water commissioner and also having been on the county negotiating team during virtually the entire time of negotiations, I am in a position to note an important misconception in your draft EIR that was not as obvious to others who had not had my inside view of the negotiations.

First of all you correctly state on page 5-22:

"A proposed new enhancement/mitigation project involves increased rewatering of a 53-mile stretch of the lower Owens River. This project would be in addition to the existing lower Owens River rewatering project. 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 proposed project would include the construction of a pump-back station from the Owens River near Keeler Bridge to the Los Angeles Aqueduct to return the water to the aqueduct that had been diverted to the river channel, so a substantially larger flow could be placed in the river without requiring additional groundwater pumping in the Valley to make up for the loss and to prevent excessive flows through the delta waterfowl habitat onto Owens dry lake bed."

The above statement is essentially correct. The Lower Owens River rewatering was part of the agreement between the County and LADWP without any sort of agreement that it was a trade for other areas where

damage to the Valley had taken place by the activities of LADWP. If anything, the rewatering would have been considered as only a partial repair to the damage originally wrought to the Owens River itself by LADWP. There is nothing unique in this lack of a trade, because LADWP made several concessions during the course of our negotiations and this was one of those.

1

However, the error in the EIR as written by your group lies in stating that the Lower Owens River rewatering and pump-back station was a trade for other mitigations in the valley. This is wrongfully stated in the examples enumerated below:

1. On page 7-12 you state as mitigation for damage to eight named springs that "Although not all springs and associated riparian and meadow vegetation will receive on-site mitigation, the Lower Owens River Project will provide mitigation of a compensatory nature. ---"
2. On page 7-15 you state that "The loss of meadow or riparian vegetation that was dependent on tailwater from formerly irrigated fields will be mitigated in the form of compensation by the restoration of meadow and riparian vegetation by the Lower Owens River Project."
3. On pages 7-16, 17 you state that because of the damage noted in number 10-20 that "Portions of the Lower Owens River project, including Thibaut Ponds, are in this area. Thus portions of the impacted area will be mitigated directly, however, for much of the impacted area, mitigation will be in the form of compensation through the Lower Owens River Project restoration of wetland, meadow, and riparian vegetation." (This section was later rewritten, therefore, I may not have the exact wording in my quote.)
4. On page 10-62 in the fifth paragraph you again state "Although not all springs and associated riparian and meadow vegetation will receive on-site mitigation, the Lower Owens River Project will provide mitigation of a compensatory nature. This project will ----"

2

Various areas damaged that have not been mitigated are not to be considered as being mitigated by the Lower Owens Project. The Lower Owens River Project is no more to be a compensating mitigation to these damages than are the various monies, etc., LADWP will pay to the County as part of the agreement.

I am looking forward to your correcting this portion of the EIR, and am glad to go on record regarding this aspect of the Agreement.

Sincerely,

  
Raymond F. Gray, Inyo County Water Commissioner

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## **RESPONSES TO COMMENTS LETTER B9**

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### **RESPONSE B9-1 AND RESPONSE B9-2**

Please refer to responses to master comments MT-3, MT-6 and MT-8 for discussion of mitigation under CEQA, and a description of the Lower Owens River Project; also please see Appendix C-2 for a description of the Lower Owens River Project.





**Letter B10**

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**City of Bishop, Department of Public Services**

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# CITY OF BISHOP

P. O. Box 1236

377 West Line Street, Bishop, California 93514

CITY HALL (619) 873-5863 · PUBLIC WORKS (619) 873-8458

January 28, 1991

E.I.P. Associates  
150 Spear Street, Suite 1500  
San Francisco, Ca. 94105

## DRAFT EIR GROUNDWATER MANAGEMENT PLAN

This letter is being written in response to the recent request for written comments on the draft EIR on the Groundwater Management Plan. The City of Bishop is vitally interested in protecting our water supply for the City. Groundwater pumping on the Bishop Cone is of special interest because this is our primary source of water for City residents and businesses. Because of Bishop's reliance upon this source, we would appreciate that assurances are placed in the agreement that would protect and not adversely effect our ability to supply water now or in the future.

The City's water sources include three water wells ranging from 400 feet to 600 feet deep. We are concerned that mining these deep aquifers may not be immediately obvious. We are also concerned that the proposed recharge will not recharge the deep groundwater aquifers that supply the City of Bishop. We feel that our wells should be a primary concern for protection under the agreement.

In the future, the City of Bishop will need to replace existing wells and construct additional wells in order to supply its needs. The City of Bishop should have a proprietary right to the groundwater to supply our needs and those rights should not be effected by the proposed agreement and groundwater management plan.

Sincerely,

Andrew Boyd  
Public Services Director

CC: City Council  
Rick Pucci, City Administrator



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## **RESPONSES TO COMMENTS**

### **LETTER B10**

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#### **RESPONSE B10-1**

The provisions of the Agreement specifically prohibit the impacting of private water supplies, including those of the City of Bishop. Please see responses B7-9 through B7-13 in Letter B-7 regarding water quality in and around Bishop. Please refer to responses to master comments PD-4, PD-7 and AF-2.



**Letter B11**

**Fort Independence Reservation**





LETTER B-11

FORT INDEPENDENCE RESERVATION

VERNON J. MILLER, Chairman

P.O. Box 67  
INDEPENDENCE, CA 93526  
(619) 878-2126

January 28, 1991

Mr. John A. Davis P.E.  
Senior Vice President  
E.I.R. Associates  
150 Spear St. Suite 1500  
San Francisco, California 94105

Dear Mr. Davis:

Enclosed find reports by myself and our Attorney Mr. Robert  
Dellwo concerning the City of L. A. and Inyo County Water  
E. I. R.

We are faxing same to your office as of this date and these  
reports will be mailed to you today January 28, 1991.

Sincerely,

*Vernon J. Miller*  
Vernon J. Miller  
Tribal Chairman

#

# FORT INDEPENDENCE RESERVATION

VERNON J. MILLER, Chairman

P.O. Box 67  
INDEPENDENCE, CA 93526  
(619) 878-2126

December 12, 1990

I, Vernon J. Miller, Tribal Chairman of the Fort Independence Reservation, a Federally recognized tribal government state the following:

1 We protest this E.I. R. as it relates to the City of Los Angeles Department of Water and Power, and the County of Inyo, as these two entities have no jurisdiction over entities such as our Reservation. The damage to air and water quality is effecting and damaging to our health and well being. We are subject to these conditions by increased pumping of ground water extraction and the dying vegetation and blowing dust. Our Reservation is located in the heart of the Owens Valley, 2 miles north of the town of Independence, California.

Damage has occurred on and in the vicinity of the Reservation. Lowering of domestic water wells and pumps on the Reservation. Increased pumping bills, lowering of pumps twice in past year has been a financial burden to the tribe.

The new mitigation wells, in the agreement between the City of Los Angeles and the County of Inyo are very damaging to the Tribe.

Have the requirements of C.E.Q.A. and other agencies for the protection of the environment been adhered too, or are they being allowed to be ignored?

The complete disregard for federally recognized Reservations, the right to participate or have a voice in this matter. The E.I. R. report on Indian Lands are not true. The tribes do have water rights. See deeds of record, U.S. to City of Los Angeles. ff

Water rights for Indians under Winter's Doctrine are missing or not addressed.

Water quantifications in terms of surface and ground water again not addressed. Fort Independence Water Rights in Oak Creek Decree of 1923, not identified.

I have given some records of fact to Paula Villa at the December 4, 1990 meeting of the Inyo County Board of Supervisors in Independence.

December 12, 1990  
Page 2

Mr. John Davis of the firm of E.I.P. & associates was called sometime in the past year and informed by myself of the situation with tribal governments especially under title 25, Code of Federal Regulations. There are only 3 or 4 paragraphs in the report relating to Indians and Indian Water Rights.

If this statement is incorrect, please advise me so there can be no misunderstanding of our protest to this complex situation.

Sincerely,



Vernon J. Miller  
Tribal Chairman  
Fort Independence Indian Reservation

#### SUPPLEMENT TO THE FOREGOING

Since delivering the foregoing on December 12, 1990 the writer and representatives of the Tribe have met with other tribes of this Valley and primarily with the Big Pine Reservation. That Tribe is preparing a detailed response to the EIR. The Fort Independence Reservation hereby endorses and states its agreement with the materials, data and positions taken in that Big Pine Tribal response.

This Tribe has additionally employed an Indian Law and Water Rights specialist, Attorney Robert D. Dellwo, 250 Lincoln Building, 818 W. Riverside, Spokane, Washington 99201 to review the EIR and prepare a further Fort Independence Tribal Response. It follows herein and is hereby adopted by the Fort Independence Reservation as a portion of its response to the EIR.



Vernon J. Miller  
Tribal Chairman  
Fort Independence Reservation

1-28-91

*Quality of water for domestic use definately needs to be monitored VJM*

January 24, 1991

RE: WATER FROM THE OWENS VALLEY TO SUPPLY THE SECOND LOS  
ANGELES AQUEDUCT

MEMORANDUM TO ACCOMPANY EIR RESPONSE

FROM: FORT INDEPENDENCE RESERVATION

By: Robert D. Dellwo  
Tribal Attorney

The following memorandum in behalf of the Fort Independence Reservation is drafted to accompany the response of Vernon J. Miller, Tribal Chairman dated December 12, 1990. The writer is an attorney who has represented Northwestern Tribes for over forty years. He has a reputation as a water rights lawyer with an accepted expertise in the hydrogological status, background and history of various hydrological valley complexes such as the Owens Valley. [See attached Vitae]

#### GEOLOGIC HISTORY AND STATUS

2

The draft EIR reviews superficially the geological origins and status of the Owens Valley. The EIR is most inadequate and incomplete in this subject. It almost ignores the geological history and background of the Owens Valley and does not even mention the dominant geological historical fact that determined the nature of the entire landscape, the Pleistocene period which has extended approximately the last 2,000,000 years.

The Valley is a product of the Pleistocene. While too far south to be covered by the great ice sheets of the Cordilleran and Laurentide that covered all of Canada and much of Alaska, reaching South beyond the 45th parallel, it experienced the repetitious waxing and waning effects of massive mountain

glaciers which, in synchrony with the Pleistocene repeatedly moved out of the canyons of the Sierras and the Inoyos and, at different times, covered the Valley.

The effect of these glaciations are quite apparent; the gouged canyons with their hanging valleys, the scattered erratics, the intruding glacial morains, some so old that they must have been left by the Illinois glaciations, others during the Wisconsin glaciations and certainly some as recent as the last major glaciation which peaked about 18,000 years ago.

Glacial dams caused lakes to rise and fall with layers of impermeable sedimentation remaining. As lakes Lahontan, Walker and Bonneville rose to gigantic proportions, Owens Lake lifted several times to elevations above 3790 and enlarged to 200 to 300 square miles, spilling over into adjacent valleys.

With the ending of the Pleistocene and some intervening glaciations that occurred as recently as 6,000 years ago, Owens Lake began to shrink, losing its overflow outlets and, along with Lahontan and Bonneville (Great Salt Lake) becoming a brackish sea.

The Pleistocene era modified the valley floor with sedimentary, alluvial deposits such as clay strata and lenses which are quite impermeable, and aggregates of glacial loess, volcanic ash, gravel and sand. The hydraulic mechanisms of the Valley were changed and became what they were before the beginning the DWP projects. The EIR is quite inadequate and lacking in its explanation of this geological-pleistocene history and its effects.

#### THE COMING OF EARLY MAN (INDIANS)

The coming of man to North America and finally to the Owens Valley was in synchrony with the foregoing recent Pleistocene history, governed by the glaciations and their retreats. There is a growing consensus among anthropologists that during the

↑ deglaciative period of 20,000 to 30,000 years ago the MacKenzie Corridor just east of the Rocky Mountains opened wide, man was in Central Alaska and worked his way through that corridor so that he appeared on what was to become our Great Plains about 22,000 years ago. He was well established in our Southwest during the freeze of 13,000 to 20,000 years ago and ready to move into the North and Northwest as that glaciative period began to end about 13,000 years ago.

During the same period a different Eastern Asiatic race moved slowly around the continental shelf on the Pacific Rim and arrived in the Western Canada-Puget Sound area about 13,000 years ago. It is probable that our Southwest people, often referred to as the Clovis people, began to move into the area that included the Owens Valley about 12,000 years ago. A little later, with the full retreat of the glaciers, Northwestern man including the Shoshone predecessors came in from the Northwest eventually constituting the Shoshone-Paiutes who have inhabited the Valley ever since.

What they found and developed was an Indian wonderland. A beautifully situated valley of lakes, streams, springs, flowing artesian wells of all types, a marvelous combination of flora and fauna, giving the early Indian people everything they needed. While the Valley was dry with almost all clear, sunny days, it was underlain by that wonderful aquifer which, even on the higher ridges and upper fields, was close enough to the surface for the roots of the native grasses and other dry weather plants to reach. There emerged a balanced, adequate subsistence economy. Fish in the streams and lakes, herds of grazing deer, elk and other game, large fields for gathering all kinds of vegetables, fruits and fibers. The Indian economy and culture flourished along with that of their adjoining tribes in the Lahontan, Walker and Bonneville Lake regions. They had constant relations with the Southwest Indians who were establishing their historic cultures that we read so much about today.

## COMING OF WHITE MAN

4

While the EIR seems quite inadequate in its discussion of the early history of this region, it does a better job of dealing with the coming (the invasion of) the white man into the Owens Valley.

Coming first in about 1850 he rapidly took over the Valley so that by the early 1900s it was a flourishing, agricultural community, capitalizing on the same combination the Indians had found. The dry climate with the underlying aquifer, lakes, springs, streams, etc, augured well for a permanent, agricultural economy. The Indians and Whites farmed and ranched side by side, intermarrying so that a large proportion of the Indian population became half bloods. The beginning of the end of all this came in 1904 when the Owens Valley, its streams, lakes and aquifer was discovered by the burgeoning metropolis known as Los Angeles. By 1913 most of the Valley water began to arrive in Los Angeles through its first aqueduct. Los Angeles, without apparent right, diverted the Owens river and by 1924 Owens Lake became the dry desert it is today. As Los Angeles moved its operations further and further north, acquiring most of the agricultural property, the draining of the aquifer increased and the water table dropped. The end result is outlined the draft EIR-1990. The Valley became a desert. The Indian people were wiped out as a native agricultural community. In the opinion of the writer, 20 years from now all the Owens valley will be is the route of the highway from Reno and Bishop to Los Angeles with scattered towns sustained by the tourist, traveling public. The Valley will have become a non-productive desert. The small Indian reservations and their people will have essentially disappeared.

COMMENTARY ON DRAFT EIR - 1990

There follows the comments of the Fort Independence Tribe (through the writer) to the draft EIR. The numbers correspond to page numbers.

5 S-1 "The first aqueduct was primarily filled with surface water diverted from the Owens River and the Mono Basin." This means that in 1913 the City of Los Angeles, without apparent right, diverted the Owens River cutting off the source of water to Owens Lake. This lead to the lake drying up and becoming a white, salty desert.

6 S-8. The proposed increase in the water to be exported to Los Angeles will be obtained by diverting surface water "that has been made available by a reduction in the number of irrigated acres owned by Los Angeles and from surface water that formerly did not enter the aqueduct system." This means that there will be a corresponding increase in non-irrigated land and decrease in the small flowing streams that still remain. The humidity and greenery of the Valley is proportionately reduced with an increase in dryness and wind-blown particulates.

7 S-9 Presently "exported" is 130,000 AFY. With the increase it will be 190,000 AFY. If one analyzes these figures it becomes apparent that the annual export of water will be approximately double the stated amounts. The very next page shows that the combination of runoff, flowing wells, and pumped ground water will be 435,000 AFY. The amounts allocated to other uses, not to be exported, are grossly exaggerated. The capacity of the aqueduct system is stated to be 780 CFS or about 1500 acre feet a day or 540,000 acre feet a year.

8 S-21 Effect on vegetation: This discussion very much understates it. The water table has dropped beyond the reach of the deepest tree, alfalfa and grass roots. On the dry lands most of what is left is desert brush and dead plants. These are temporarily holding the soil. There is no water for new plants.



It will take about five years for the remaining skeletal plants to crumble, decay and disappear. The terrain will become more desert-like with all the characteristics of a desert.

S-22 Mitigation: As it exists it is just a token gesture. The writer looked at many sites and predicts their failure to accomplish any thing substantial.

Air Quality: the Owens Lake soda ash dust permeates the whole valley. This is added to by the increasing dust blown from the formerly productive, now bone-dry fields.

1-1 The description of the Valley is Chamber of Commerce jargon: "predominant land uses in the Owens Valley are recreation and ranching." Both are rapidly disappearing as the water is lost. It is correct to say "there is very little development outside the towns" and "Los Angeles owns virtually all of the land outside the towns" and the BLM beyond. Not mentioned is the fact that Los Angeles acquired all of this land subject to the residual and remaining rights of the Indians and their tribes. The writer is a specialist in Indian law and knows that without legally approved cessions from the Tribes their rights to access, hunting, fishing and gathering through the Valley remain. The exercise of these rights are wiped out but "no problem" the things for which they might fish, gather and hunt are gone. The writer has carefully reviewed the legal history of this Valley and of the LADWP projects and can't identify what necessary legal process caused the loss by the Tribes of these rights to their former lands and of their ownership of the bed of Owens Lake, now dry.

1-3 The statistics on aqueduct capacity: Obviously LADWP has its eyes on all of the water. This is evident for example from the fact that it has one by one eliminated every small land owner or lessee, including tribal members. The Indians have been pushed out of every acre Los Angeles owns. There is not a single Indian Lessee.

13 Query: What is the sense of the second aqueduct if Los Angeles does not intend to utilize its capacity?

14 1-4 "Increased export of water from Owens Valley to L.A." Read these two pages. The listed ground water recharge and environmental projects and "enhancement/mitigation projects" are legal euphemisms - nonexistent or ineffective.

15 2-3 Chronology of Water Development In Owens Valley: A cold-blooded sequence leading rapidly to a taking of all the water and the destruction of a Valley. Note that in this sequence it mentions nothing of Indians and their rights or of how these rights would taken or lost.

16 2-5 The Second Aqueduct: It is interesting to note that in the EIR discussion of the case of Arizona v. California no mention is made of the finding by the court that the various Indian tribes have prior and paramount rights to the waters of the Colorado River that can be quantified to the water needed to irrigate the irrigable acres. A lawyer reader of this commentary might be interested in reading the writer's discussion of that case in his law review article entitled Indian Water Rights - The Winters Doctrine Updated (Gonzaga Law Review, spring 1971). It upheld the preferential priority of tribal-Indian water rights on the Colorado as against the apportionment that was being made between the states. Many of the teachings of that case are applicable to the Owens Valley.

17 2-7 The riparian doctrine is accurately described. The implication is that Los Angeles acquired all the riparian rights by acquiring all the land. This is not accurate. The Valley itself, as a homeland for its people and the Tribes, retains basic riparian rights so that the streams, lakes and groundwater will not be so used (and diverted) so as to harm (environmentally and quantitatively) that homeland. The Fort Independence Reservation has, in addition to its Winters Rights, basic riparian rights to Oak Creek that flows through the reservation. There is a growing body of law that riparian rights include ground waters

that eventually feed surface streams. For example, in Washington State permitted pump irrigators are being shut down because their use of groundwater is drying up intermittent spring-feed surface streams. [ The writer is an attorney in some of those cases.)

2-9 Describes the land exchange with the "Paiute and Shoshone Indians." Negotiating only with the Bureau of Indian Affairs, the exchanges took place and

"gave to L.A. the water rights the Indians possessed, along with 2,914 acres of land ... throughout the Valley ... In return, LA. gave the Indians 1,392 acres of prime agricultural land for reservations close to Bishop, Big Pine, and Lone Pine. (Fort Independence chose not to participate in the land exchange.) Los Angeles also agreed to supply the new reservations with over 6,000 acre-feet of firm water annually for irrigation and domestic purposes."

COMMENT: The foregoing is a simplistic distortion. Many unresolved legal questions remain including whether the Bureau of Indian Affairs had any authority to represent the tribes in the exchanges. It is the understanding of the writer that LA. took the land without the Indian water rights and that they still exist. [the right to about 3200 acre feet of water a year to utilize beneficially some place]. Having toured all the reservations it seems absurd to use the nomenclature "gave the Indians 1,392 acres of prime agricultural land..." Undoubtedly these reservations (other than Fort Independence) will file their own response or commentary. As for Fort Independence, its retained water rights are badly imperiled. Recently LADWP terminated a final lingering lease with a tribal member ( Dan Miller) because he was allegedly misusing his lease by transporting to it a portion of the tribe's water from his adjoining reservation. L.A. thus got rid of the last remaining Indian lessee. The legal fact is that he had every right to utilize a portion of his tribe's water on his nearby leased L.A. land.

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3-21 Discusses the National Audubon Society v. LADWP case and subsequent litigation. It is apparent that none of this litigation is completed. In the first case " The court ordered a public trust balancing trial, balancing the beneficial use of the water by LA. with the needs of the lake." (Mono Lake) Not mentioned is the destruction of Owens Lake and other water bodies. It is apparent that the tribes were [are] not represented in any of this litigation. If they were the courts would find that their needs and rights are immune to any balancing against the needs of Los Angeles.

20

4-1 WATER MANAGEMENT IN OWENS VALLEY. Note that on page 4-5 it is indicated that in wet years a maximum of 21,800 acres of L.A. land was irrigated prior to the second aqueduct. In dry years this irrigation was totally cut off "if Los Angeles determined that the water was needed for export." Thus the Valley surface was deprived of water (in the dry years) when needed the most.

21

4-9 With the second aqueduct the number of acres classified as irrigated leases is reduced.

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4-10 An interesting table showing the uses of water by the various towns before and after 1970. The decrease or drop in use is in the range of two thirds.

23

5-1 Proposed Project - Lists the "increased export" will be achieved primarily from more pumping, less irrigating and increased water diversion. This includes, as related above, the elimination of all Indian leases of L.A. land.

24

5-5 Groundwater Mining. The prevention of groundwater mining is listed as a goal with a plan that "over a 20-year period (The total pumping) does not exceed the total recharge of the same well field area over the same period." The writer is sure that any impartial testing of the various wells will disclose a serious drop in ground water. On the Fort Independence Reservation domestic well the ground water level has dropped over 40 feet. What is proposed regarding the "20 year period?"

Implied is that LADWP has 20 years to pump with subsequent tests to see what happened. In a similar aquifer on the Spokane Reservation with a similar problem the court has appointed a water master to monitor all pumpage and diversions. The Water Master predicts the aquifer levels and the expected rate of recharge and sets a yearly schedule of time and limits for the pump irrigators.

5-7 Increased Export of Water from Owens Valley to Los Angeles. Verifies what has already been discussed and brings out again the "wet and dry-year scenarios" that are just the opposite from what is usually expected - increased pumping from the Valley in dry years..

5-17 Ground Water Recharge Improvements. Spreading areas are minimal. Inspection of them reveals a "puddling" sealing effect so that actual sinking into the ground is minimized. The amount of water flowing into the recharge areas is minimal. Most of the recharge areas are in the "bottoms" underlain by impermeable sedimentary clay strata.

5-24. Releases of L.A. Owned Land from Public and Private Use? It is noted that the proposed releases consist only of the possibility of the sale of 75 acres plus another 26 acres of surplus LA. owned land within Bishop City limits - a tiny gesture.

#### 6-1 Alternatives to the Proposed Project:

Comment: The only alternative acceptable to the Fort Independence Reservation is Alternative 1 of "No Project" which would "involve a return to pre-1970 Owens Valley water management practices."

6-47 The discussion of alternative #2 "No increased pumping - no in-valley irrigation" brings out the fact that "It is apparent that much of the thousands of acres of lands removed from irrigated agriculture between 1920 and 1970 have not returned to their pre-irrigation condition." This comment

highlights the probability that none of the land will return its "pre-irrigation condition" as long as the lowered water table resulting from L.A. pump and surface water diversions continues.

30 COMMENT RE ALTERNATIVES: No where in any list of "alternatives" is the obvious alternative of the transport of Northwest water into Southern California. That this is a feasible alternative is outlined in the attached memorandum.

7-4 Table 7-1 Summary of Invironmental Effects:

The following statements in the Summary of Environmental Effects appear to be fallacious, incomplete or inaccurate. Numbers are section numbers.

31 8-1 Ground water pumping associated with the project has not and will not result in ground subsidence.  
[Comment: not true!]

32 9-4 "Flow Into Owens Lake Was Not and Will Not be Substantially Changed from Pre-Project Conditions by the Project."

This reassuring comment is possible only because, prior to 1970, Owens Lake was completely destroyed by the diversion of Owens River. The pre-project condition is that it has become a windblown, dusty, salt flat and desert. This condition will, of course, not be "changed" except to worsen. It will remain a dry lakebed with its windblown dust filling the valley.

9-6 Between 1970 and 1990 the project resulted in beneficial changes to existing lakes and ponds, and the creation of new lakes and ponds, with no significant impact on water resources.

9-8 "Flows in certain canals and ditches supplying irrigated Los Angeles-owned lands were increased as part of the project, with no significant impact on water resources."

9-11 "Increased pumping between 1970 and 1990 caused alterations of groundwater flow patterns with no significant impact on water resources."

9-15 " The increased fluctuations in ground water levels observed between 1970 and 1990, and the extensive drawdown over extended periods of time, have reduced the amount of water that moves from the groundwater system to the vadose zone as compared to pre-project conditions. This has resulted in reduced evapotranspiration, but has otherwise had no significant impact on water resources."

Comment: The middle phrase should be read to mean: "... have reduced the amount of water from the lowered groundwater levels to the surface soils..." )

10-11 through 10-13

COMMENT: These sections verify the die-off of vegetation on approximately 1100 acres of land because of "increased groundwater pumping." The die-off occurred because of the drop in groundwater levels beyond the root zone. Based on the writer's own experience in similar situations revegetation will not be successful except in conjunction with reliable recurrent surface irrigation. LADWP does not intend this.

10-14 indicates a similar experience in the reduction and elimination of various springs.

10-16, 10-18, 10-19 and 10-20. Same comment as that made for 10-11 through 10-13. Here is another thousand acres that have not been successfully revegetated. These areas have become totally barren with blowing dust. There is no "native Owens Valley vegetation not requiring vegetation" other than various scrub species that have little nutritional value.

It is the opinion of the writer, based on years of experience that none of these areas of vegetation lost due to drop in ground water are remediable by any method suggested by DWP.

14-5 "Ranch leases in Owens Valley were modified as a result of the project." The writer observed that most if not all of the small-family farm-sized lessees were terminated or bought out and the various leases consolidated into the hands of a few large-scale cattle operations with individual leases of thousands of acres. Recently the very last lease to a tribal member was terminated on the pretext that he was violating the lease in transporting water to the land from the reservation. This, as explained above, was perfectly legal. The tribe has a legal right to transport its

water to nearby acreages operated by tribal members. In a few years there will be not more than a half dozen principal lessees in the entire Owens Valley.

16-7 "new wells in the Big pine area would lower ground water levels, and could result in significant impacts to local private wells." [Comment: because DWP owns almost all of the land there are few private wells left to "impact." What is impacted is the groundwater level in the entire valley leading to serious environmental effects.

This same comment is made to 16-11 and 16-12.

The Summary of Environmental Effects rivets down the fact that the entire Valley is already in a state of water depletion and loss of natural flora and fauna and that these very bad pre-existing conditions will be further exacerbated.

The Summary of Environmental Effects makes no mention of effects on tribal and Indian interests.

#### 8-1 Geology, Soils and Seismicity

It should be obvious to anyone such as the writer with knowledge and expertise about the Pleistocene era (the last 2,000,000 years) that the Owens Valley is largely the product of the glaciations and interglaciations of that era particularly those of the Illinois and Wisconsin. Undoubtedly the alluvial fans, the gouged canyons, the hanging valleys, the impermeable stratifications of the former lake beds, the evidence of old shorelines, the innumerable erratic rocks, the circles of black rocks dropped by icebergs, in fact perhaps the upper fifty feet of the various Owens valley aggregated soils and strata are the results of the Pleistocene.

The paragraph middle page 8-4 begins as follows: "The lakebed sediments in the southern part of the Bishop Basin include laterally extensive clay layers, etc." All of these surface and near surface clay deposits and strata are the sediments of the Pleistocene Lake that filled the valley and are



of rather recent origin. These clay lenses and strata, lying so close to the surface, make difficult spreading, recharge efforts ineffective.. The relatively impermeable clay will hold the spreading waters on the surface so that they will have little if any effect in recharging the deeper aquifer.

On page 8-8 the drafter speaks of alluvial fan deposits. These resulted from the gouging by the mountain glaciers and were modified by outpourings of flash floods and by being covered by the waters of the lake which intermittently filled the valley.

On page 8-10 the EIR speaks of volcanic deposits as being quite permeable and of the transmission of water "between the permeable volcanic material and the less permeable silt and clay..." In the Northwest residual volcanic ash is considered quite impermeable.

COMMENT: This writer is surprised that the drafter of this section of the EIR makes no mention at all of the Pleistocene, glacial, interglacial era which carved the formed the visible Owens Valley. This and other oversights brings into question the expertise or superficiality of the hydro-geologist and his various findings.

9-6 Discussion of Owens Lake. The discussion avoids the fact that the drying up of Owens Lake was caused by the diversion by DWP of Owens River to Los Angeles. The effects of diversions up stream were minimal. USGS bulletin 590 entitled "Contribution to Economic Geology," copyright 1913, described the lake at that time as comprising 62,267 acres and 97.2 square miles. It had a maximum depth of 29.6 feet and a surface elevation of 3577. That elevation had dropped twenty feet between 1872 and 1913 "because of irrigation." During earlier years in the most recent glacial epoch the lake covered 240 square miles and there are high beach lines evident at the 3760 and 3790 levels. The water was described as "dense brine" heavily filled with salt, soda, borax, potash and other minerals. It was as brinish as the Great Salt Lake. One writer estimated that if all of its salt were in one

block it would create a cube a mile square and 150 feet high. With Owens River diverted to Los Angeles in 1913 the lake gradually evaporated into its present salt flats. The writer visited it on a windy day and viewed dust (salt) storms moving across the dry lake bed filling the air with greyish, lung and throat irritating material. Some of the salt flats are being mined or processed commercially. It is seen that, until its drying, Owens Lake was a source of water vapor and humidity to the Valley, it now has the opposite effect and often fills the entire valley with its dry brinish dust.

In this entire EIR the Owens Lake debacle is ignored as being "pre 1970" and therefore not relevant. Nothing was required of DWP to prevent this drying of the lake in 1913-24. Should it be allowed to ignore its responsibility now?

10-27 It is stated: "It must be noted that the description of groundwater dependent vegetation on the Valley floor in the pre-project period is complicated by the fact that no surveys or inventories exist that document the vegetation conditions during this period. Therefore, the pre-project conditions are based upon the best available information including several studies conducted after 1970." This is a ridiculous statement. DWP has occupied this valley since the turn of the century and constructed its first aqueduct in 1913. Its information about the valley must be voluminous. The writer in a two-day visit, talking to several oldtimers, visiting the Independence museum and just remembering his visit to the valley in 1942 as an FBI agent had no difficulty in gathering pre-project information.

There is copious pre-project literature about Owens Valley. Must of it is available in the offices of USGS. The following are examples:

Geological Survey Bulletin 1061 entitled  
Contribution to General Geology, 1956, pages 1 to 13.

USGS Professional Paper 424, 1961, pages 111, 122, 124, 238

Contribution to Economic Geology, 1913 (USGS bulletin 580), pages 252, et seq.

USGS Professional Papers 108-110, 1918

USGS title OFR 88-715 Geology and Water Resources of Owens Valley, California (USGS Sacramento)

10-33 "Irrigated Acreage Continuing to Increase to a Maximum of Approximately 75,000 acres during the mid to late twenties:" Between 1924 and 1935 Los Angeles purchased the majority of the private lands in the valley. As Los Angeles removed lands from irrigation, not only were the irrigated lands dried up, but less water was available to support vegetation in areas down gradient from the formerly irrigated lands...

12-1 Air Quality: This brief section outlines the deterioration of air quality resulting from the DWP water diversion operations. Some of the statements are as follows:

12-2 "One Month after the EPA promulgated the PM10 standard, the Owens Valley between Tinemaha Reservoir and Haiwee Reservoir was designated as a Group I non-attainment area from PM10 standard."

12-6 "PM10 monitoring sites in the Owens Valley have verified Owens Lake as the predominant source of federal PM 10 exceedances.. A concentration of PM10 measured near Owens Lake was the highest measured in the U.S." [It then lists other Owens Valley Sources almost as bad.]

.....  
"For example, an area east of Independence has a significant dust source. Approximately 700 acres in an area known as the Independence Springfield became barren as a result of groundwater pumping to supply the second aqueduct."

12-8 A paragraph sets out the process involving the "Owens (dry) Lake (and Owens Valley) dust problem" in efforts to bring this DWP dominated area into compliance with state and federal regulations. It appears to be an impossible task.

12-10 "Significant Impacts on Air quality resulting from groundwater pumping during the period 1970 to 1990 have occurred due to vegetation losses."

12-12 " Significant impacts to air quality have resulted from the abandonment of irrigated lands to supply the second aqueduct."

These pages do not require any further comment. It is obvious that to attain minimum air quality standards not only must Los Angeles not be allowed to increase pumping and diversions but it must have much of its current operation curtailed.

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#### 14-1. LAND USE AND ECONOMIC DEVELOPMENT

This most inadequate discussion of the land use economy of the Valley keys into the last few years, skipping over the Valley's earlier history. While it recognizes the historical agricultural use of the Valley it traces that use to the early 1860s. Ignored is the fact that the Indian tribes made this valley their homeland for thousands of years. During that historical, aboriginal period the Valley was ideally situated as to climate and geography. In recent centuries the rainfall dropped to the six to ten inch per year category, but the water table, fed by the Sierras, was just below the surface or emerged into streams and lakes. The Valley was a bounteous grassland with the natural flora and fauna sufficient for these people. Until "project times" the later Valley, after the coming of the white man, was that of family farms with hay, cattle and grain. That is all gone now.

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The DWP owns more than 85% of the land. While it is still to some extent cultivated and ranged in ranch leases, the small farmer, family lessee and landowner has been phased out. The leases are in the hands of three of four large entities, with each leasing thousands of acres.

Whereas in the early years, most of the Indian families farmed, none do now. The last Indian farmer (lessee) to a few DWP acres has been terminated.

As one drives through the Valley it becomes obvious that it is in a last transition period - to minimal ranching with the entire valley owned, managed and subordinated to the water needs of Los Angeles.

Compare the recitals page 14-7 (pre 1970 leasing policies) with page 14-14 (post 1970 policies.) Page 14-7 "Prior to 1968, LADWP leased 192,000 acres for agricultural purposes." 21,800 acres was classified as irrigated. Page 14-14 (post 1970) The amount of land leased and irrigated markedly reduced. Note the charts pages 14-12 (Employment structure pre-1970) and 14-21 (employment structure 1971-88). Ag mining employment, 13% pre-1970, dropped to 7% after 1971. This figure will undoubtedly reduce to less than 5% in the next few years.

#### 15-1 CULTURAL AND HISTORICAL RESOURCES

The writer, who qualifies as an Indian-tribal historian and anthropologist, finds this chapter the only one that is well done. It deals briefly but quite adequately with the aboriginal history of the occupation of the valley by the Shoshone-Paiutes and their predecessors. It discloses an advanced Indian culture and economy badly impacted by the Non-Indian intrusions beginning in about 1850.

This was the homeland of the resident Indian people. That homeland is experiencing its final destruction. The tribes have been reduced to several villages with practically no access to or use of their former lands.

All of this Valley was aboriginally owned by the Tribes. There is no record of any cession or treaty extinguishing that title. Probably title to the open lands was extinguished by governmental land policies and programs (homesteading, supervised sales, school lands, railroad lands, mining claims and leases). This type of extinguishment, in contrast to the extinguishment

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resulting from cessions and treaties, is incomplete. The Tribes still retain general land rights in the Valley, the rights of access, hunting, fishing, gathering. The writer has been engaged in Federal Court litigation for 40 years bearing on the nonextinguished title of Inland Empire Tribes to the beds and banks of navigable rivers, streams and lakes. Owens Lake is classic. A navigable lake, it was destroyed and reduced to a desert by LADWP diversions. In the judgment of the writer the Tribes still own the lake bed there having been no extinguishment. A lake bed that has become a dry, desert salt flat.

The writer notes the reference to the Japanese War Relocation Center in the Valley and recalls that, as a young FBI agent in 1942, he drove through the Valley stopping there for a day as part of an FBI program of interviews and searches of Japanese people within the Salt Lake field division of the FBI (Utah, Nevada and this strip within California).

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#### 17-1 CEQUA CONSIDERATIONS

This section should be carefully read because it sets out many of the adverse effects of the project(s) upon Owens Valley. It makes no mention of the impacts upon the Indian villages and reservations and their Valley land rights.

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#### 17-12 Areas of Controversy

While the Tribe agrees that each stated area of controversy exists, it points out that there are many that are not listed. Again it is noted, (bottom of page 17-13) that the EIR attempts to ignore the drying up of Owens Lake that has had such a deleterious effect upon the Valley air, stating that "since the dust problem caused by the lake is attributable to pre-1970 water management practices, it is not dealt with in the Draft EIR." It is estimated that at least 85% of the bad effects of the project(s) occurred prior to 1970 and continue today. Frozen in pre-time, LADWP does not believe that it should be held responsible now for these pre-1970 effects even though they obviously continue. The writer is trying to think of an analogy

that will demonstrate the fallacy of this reasoning. Let us assume that, instead of drying up Owens River and Owens Lake, LADWP permanently poisoned them so that the water was no longer potable. A new, post-1970 project would occur in which "only an additional 10% of poisoning" would occur. The EIR makes mention of this but avers that the pre-1970 poisoning (continuing today) would not be dealt with. It would seem, on the contrary, that the present increase in the poisoning (only 10%) would be on top of the existing poisoning so that the existing poisoning would have to be dealt with.

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Let us keep in mind one significant statistic: 500,000 acre feet of water is involved. Prior to the projects all of this water stayed in the valley and, after nourishing its flora and fauna, evaporated and beneficially affected the valley climate, increasing its humidity and rainfall. The cumulative effect of the project(s) has been to take all of this water out of the Valley so that not only will little if any of it benefit the Valley, but none of it will be returned to the Valley as water vapor. In its place will be the blowing dust.

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#### B-1 Stipulation and Order for Judgment

This proposed order and judgment repeats many of the fallacies outlined above and will not be discussed herein in any detail. What the parties and the court should keep in mind is that it will in no way bind the tribes.

All of the tribal rights are brushed aside on page B-16 in five lines. Obviously the drafters of this document have not the slightest legal appreciation of the breadth and significance of the tribal land and water rights in the Owens Valley.


## CONCLUSION

The Owens Valley stands uniquely as a beautiful, environmentally blessed valley now destroyed as a homeland for its resident people including several Indian Tribes. Where else in the United States has this occurred?

Think what this Valley would be if LADWP had not taken its water and dried up its streams and lakes - a thriving, rural, agricultural community. without the writer describing it in detail I am sure the reader can pause just a moment and easily construct a mental image of what it would be like - farms, grazing livestock, the game, clean, flowing streams and lakes, clear air, a happy people. All that is gone -- to Los Angeles. We now have its final draft EIR-1990 heralding the last bell that will toll for all that is left.

The Court of Appeal has found earlier EIRs legally inadequate. The court should also find this current draft report inadequate for the many reasons stated above. There should be no legal scenario that will allow LADWP to increase the export of water from Owens Valley. On the contrary, that export should be reduced with on-going programs to remedy the bad effects of previous projects.

As outlined in the attached memorandum, LADWP should be required to more fully investigate other alternatives and options, especially the option of transporting water from the Northwest either in a sea level diversion from the mouth of the Columbia River or across Eastern Oregon and Nevada from a logical point on the lower Columbia River.

  
\_\_\_\_\_  
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IN WASHINGTON AND WISCONSIN

MEMORANDUM

FROM: ROBERT D. DELLWO  
DATE: JANUARY 24, 1991


RE: LADWP EIR-90  
Alternative Source of Water  
Columbia River

The EIR does not list the possibility of the diversion of Northwest Columbia River water as an alternative to additional Owens Valley water.

The writer has been active for many years in the general field of Columbia River power and irrigation development. He served on a committee in the 1960s to block the plans of California for the diversion of water from the upper Snake River.

It became apparent that it was feasible to transport the upper Snake water. The power costs of initial pumping were more than balanced by the production of power on the down grades. The declared reaction of the Northwest power-irrigation community has always been that California can have all the Columbia River water it wants but that it must take it from the "mouth of the Columbia." The writer has never seen a study of such a project determining whether it is feasible to transport the lower Columbia River water in a sea level, just below sea level on the continental shelf or just above sea level aqueduct or pipeline.

Related to the foregoing is the possibility to diverting the water from a lower Columbia station perhaps at Arlington, Oregon, utilizing what is described as "dump power and water," pumping it into a pump storage basin for transport to Los Angeles. Pump storage projects are being seriously considered in many locales. The concept is to utilize the surplus power during high flow seasons to pump the surplus high waters into storage basins for summertime irrigation or power production. Such a project is being considered in the Omak Lake Valley which is tributary to Chief Joseph Dam on the Columbia and in the Hoodoo Valley, near the Pend Oreille River in Idaho.



The writer is generally familiar with the terrain and geology in Eastern Oregon and across Nevada either to Mono Lake or to Lake Mead behind Boulder Dam. Hypothesized here is a pump storage project, pumping into a storage basin perhaps in Gilliam County, Oregon and thence through a series of lifts and drops across Eastern Oregon into Nevada and to some destination such as Mono Lake or crossing the whole state of Nevada, into Lake Mead. It would seem that, as in the proposed Snake River diversion, the electric power use and production would balance the costs of pumping.

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## RESPONSES TO COMMENTS

### LETTER B11

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#### RESPONSE B11-1

*Please refer to responses to Letter B-3.*

#### RESPONSE B11-2

*Please refer to response to master comment G-2 regarding the Pleistocene period.*

#### RESPONSE B11-3

*Comment noted.*

#### RESPONSE B11-4

*Comment noted.*

#### RESPONSE B11-5

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

#### RESPONSE B11-6

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

#### RESPONSE B11-7

*Please refer to Chapter 5, Figures 5-1 through 5-3, of the Draft EIR for a description of flows for different years.*

RESPONSE B11-8

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

RESPONSE B11-9

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

RESPONSE B11-10

Please refer to response to master comment AQ-1, related to air quality impacts associated with Owens Dry Lake.

RESPONSE B11-11

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 B11-12

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 B11-13

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 B11-14

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 B11-15

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

RESPONSE B11-16

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 B11-17

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 B11-18

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 B11-19

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 B11-20

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 B11-21

Comment noted.

RESPONSE B11-22

Comment noted.

RESPONSE B11-23

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 B11-24

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 B11-25

Comment noted.

RESPONSE B11-26

The spreading areas used in the past, and proposed for use in the future, have been selected based on their percolation characteristics and proximity to LADWP facilities that allow for recharge. The bottom areas underlain by impermeable strata referenced in this comment are not used for groundwater recharge. Contrary to the comment, the amount of recharge in the spreading basins is not minimal, but can be significant depending on the extent of runoff.

RESPONSE B11-27

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 B11-28

Comment noted.

RESPONSE B11-29

This statement is a personal opinion of the commentor. Natural revegetation does occur in the valley, but the process is a slow one characteristic of arid climates. This fact is presented in the Draft EIR.

RESPONSE B11-30

Please refer to response to master comment AL-4 regarding a northwest pipeline.

RESPONSE B11-31

Please refer to response to master comment G-1 regarding subsidence.

RESPONSE B11-32

Please refer to response to master comment PD-3, regarding exclusion of Owens Dry Lake from the scope of this EIR.

RESPONSE B11-33

Comment noted.

RESPONSE B11-34

Please refer to responses to master comments MT-1 and MT-2 for a discussion of mitigation.

RESPONSE B11-35

Comment noted.

RESPONSE B11-36

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

RESPONSE B11-37

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

RESPONSE B11-38

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 B11-39

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 B11-40

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

RESPONSE B11-41

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 B11-42

Please refer to response to master comment G-2 regarding the Pleistocene period.



RESPONSE B11-43

Comment noted.

RESPONSE B11-44

Comment noted.

RESPONSE B11-45

Comment noted. Thank you for your interest and participation in the EIR process.

RESPONSE B11-46

Please refer to response to master comment G-2 regarding the Pleistocene period.

RESPONSE B11-47

Please see response to master comment PD-3 for discussion on the exclusion of Owens Dry Lake from the scope of this EIR. Comment noted. No further response is required.

RESPONSE B11-48

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

RESPONSE B11-49

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

RESPONSE B11-50

Comment noted.

RESPONSE B11-51

Please refer to responses to master comments PD-3, concerning Owens Lake, and AQ-1 for a discussion of air quality.

RESPONSE B11-52

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 B11-53

Comment noted.

RESPONSE B11-54

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 B11-55

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

RESPONSE B11-56

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 B11-57

Owens Dry Lake is outside the scope of this EIR. Please refer to response to master comment PD-3.

RESPONSE B11-58

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 B11-59**

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 B11-60**

Please refer to response to master comment AL-4, regarding feasibility of a northwest pipeline water supply.



**Letter B12**

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**Metropolitan Water District of Southern California**



**MWD**

*METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA*

FEB 1 1991

Mr. John A. Davis  
EIP Associates  
150 Spear Street  
San Francisco, California 94105

Dear Mr. Davis:

Draft Environmental Impact Report for the Water from the  
Owens Valley to Supply the Second Los Angeles Aqueduct

We have received the City of Los Angeles Department of Water and Power (DWP) and County of Inyo Draft Environmental Impact Report (EIR) for the "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct," SCH #89080705 (Owens Valley). The project consists of all water management practices and facilities that have been implemented or constructed in the Owens Valley to supply water to the second aqueduct, completed in 1970, together with the projects and water management practices contained in the Agreement for Owens Valley and Inyo County. The comments herein represent Metropolitan's response as a potentially affected public agency.

Support for Owens Valley Project

Metropolitan supports this proposed project in that it creates a firm water resource at a time of increasing demands and diminishing supplies. Metropolitan encourages implementation of this project to the greatest extent feasible. This project, in conjunction with other DWP projects and conservation efforts, will maintain the supply of water for the City of Los Angeles (City), and therefore renders the City less reliant upon Metropolitan for supplemental resources. The City should be aware that in Metropolitan's Regional Urban Water Management Plan, it is estimated that supplemental water supplies may fall one million acre-feet short of projected demands by 2010, absent development of new water sources.

PROPOSED REVISIONS TO THE OWENS VALLEY EIR TEXT

Metropolitan has reviewed your draft Owens Valley EIR and offers the following revisions and comments.

Mr. John A. Davis

- 2 -

FEB 1 1991

Water Supply Reliability

1

Water supply reliability is becoming a critical factor to the economy and environment of the State and Southern California. In 1990, both the State as a whole and Southern California are facing drastic shortages in water supply. These shortfalls may cause severe impacts to the State's people and economy. A recent study of the impacts of reduced water availability on Southern California industry showed that a 15 percent reduction would cause the loss of \$31 billion in gross regional product and 461,000 jobs. A 30 percent reduction in water availability would cause the loss of \$64 billion gross regional product and 976,000 jobs.

Accordingly, Metropolitan urges that the proposed project and/or agreement incorporate measures which augment water supply reliability. By the same reasoning, Metropolitan urges the City to select project alternatives which afford both environmental protection and mitigation and enhanced supply reliability.

2

Water Supply and Demand for Southern California

The draft EIR states that the City's population projections are based on a growth rate estimated by the Southern California Association of Governments (SCAG). Also, the text of the draft EIR (Section 6.3.1) mentions that the City does not have a specific growth management plan. If population projections used in the EIR are based upon SCAG's adopted Growth Management Plan, the text should state that while the City lacks a specific Growth Management Plan, it adheres to the SCAG regional plan.

Metropolitan uses SCAG's population projections to estimate future water demands, including that for the City of Los Angeles. The demand projections in Table 3-3 of the EIR text appear low according to Metropolitan's forecasting methodology and SCAG's projections. The amount of conservation savings incorporated in Table 3-3 is unclear. Metropolitan's comparable population and demand projections are shown in attached Table 1 (Exhibit 1).



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Metropolitan cannot determine from information contained in the draft EIR just how the City "informally estimates" 10 to 15 percent of uncounted population (Table 3-1, Footnote No. 2). Metropolitan has conducted a study of population undercount which indicates an undercount of 200,000 to 327,000 in 1980, representing 6 to 9 percent of the counted population.

Additionally, Metropolitan has updated its water supply projections. The updated figures are published in Metropolitan's Regional Urban Water Management Plan, which was released in November 1990 and adopted by the Board of Directors in December 1990. The new supply data are shown in the attached Table 2 (Exhibit 2). Metropolitan also suggests that Footnote No. 3 read:

"Demands are based on normal weather conditions. They may be lower during years of severe drought due to implementation of short-term mandatory water use measures and public awareness. Demand could be 6.5 percent greater in years of below normal rainfall and higher temperatures."

#### Water Conservation

Metropolitan encourages agencies within its service area to implement water conservation measures and to discuss such measures in related environmental documents. As cyclical droughts and continuing growth intensify demands on the current water supply system, conservation becomes increasingly essential. The Owens Valley EIR discussion of water conservation appears comprehensive. Metropolitan suggests, however, that a description and discussion of the state-wide urban water conservation Best Management Practices (BMPs) be included in the Final EIR. These BMPs could also be mentioned throughout the document, wherever conservation measures are discussed, (i.e., p. 6-33, paragraph 4).

#### Metropolitan Water Supply Resources

We have carefully reviewed the discussion of Metropolitan's water supply to Southern California and suggest that portions of the text be revised. Specifically, we request that page S-19 be replaced with the text in the attached Exhibit 3. This discussion ought to identify environmental trade-offs with other sources of replacement supplies, and discuss the effects of water shortages. Please also incorporate revisions to the section entitled "PURCHASE OF WATER FROM MWD" (pp. 3-22 to 3-26) as shown in the attached Exhibit 4. Additionally, we suggest that you make the following corrections to Section 6.3.4, INCREASED PURCHASE OF WATER FROM METROPOLITAN WATER DISTRICT (MWD). The last sentence of page 6-28,

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"Twenty-seven water agencies are members of MWD, including Los Angeles", should be revised to read, "Supplies from MWD are distributed by its twenty-seven member agencies, including the City of Los Angeles."

7 Further, the subsection entitled "MWD'S Colorado River Water" (pp. 6-29 to 6-31) should be revised as in the attached Exhibit 5. Subsection "MWD's State Water Project Water" (pp. 6-31 to 6-32) should be replaced with the attached text Exhibit 6; while subsection "MWD's Other Water Supply Programs" (pp. 6-32 to 6-33) should be revised according to the attached Exhibit 7. Please end "Conclusions" (p. 6-33) with a sentence stating: "This alternative could result in greater shortfalls of supplies to the entire MWD service area and/or to other State project water contractors." Finally, Metropolitan suggests that subsection "Environmental Effects" be reviewed for consistency with the Arvin-Edison Water Storage and Exchange Program Environmental Impact Report/Environmental Impact Statement (EIR/EIS), also prepared by EIP Associates. Your discussion of the environmental effects of increased SWP diversions, should be consistent with that presented in the Arvin-Edison EIR being prepared for Metropolitan, Arvin-Edison Water Storage District, and the Bureau of Reclamation.

8 Section 17.6, "RELATIONSHIP TO OTHER WATER SUPPLY PLANS," summarizes other California water supply actions that may affect or be affected by the proposed project. Please revise the discussion as shown in Exhibit 7. Metropolitan does not see how the Implementation of a 1988 Water Conservation Agreement between MWD and Imperial Irrigation District (IID) or the Arvin-Edison/MWD Water Storage and Exchange Agreement could affect the increased groundwater pumping plan. Metropolitan therefore suggests that paragraphs 1 and 2 of page 17-8 be deleted from the Final EIR. Furthermore, we suggest that the discussion of the Central Arizona Project (CAP) be deleted from this section. While a slower buildup of CAP deliveries could occur, it will require a decision of the Secretary of the Interior to make any unused water available to California.

9 Water Quality Issues

Metropolitan notes mention of trihalomethane formation during chlorination on page 6-35 of the draft EIR. We suggest that the Final EIR also discuss the saltwater intrusion/bromide bromoform issue. Even with ozone treatment, brominated disinfection byproducts could cause concern in the future and necessitate the control of saltwater intrusion into the Delta, if the water is intended for potable use.

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Points of Contact at Metropolitan

If we can be of further assistance, please contact Dr. Roberta L. Soltz, Manager of Environmental Affairs, at (213) 250-6437. Any questions regarding Metropolitan supply and demand should be directed to Ms. Grace Chan at (213) 250-6798. Questions pertaining to Metropolitan's supply of State Water Project water should be directed to Mr. William Mancinelli at (213) 250-6809. Mr. Jan Matusak at (213) 250-6772 can answer any question regarding the Colorado River system. To discuss water conservation issues, contact Mr. Michael Moynahan at (213) 250-6097. Lastly, please coordinate with Mr. Mark Beuhler at (213) 250-6647 regarding water quality issues.

We appreciate the opportunity to comment on your draft EIR. Metropolitan strongly encourages DWP to maintain its share of Owens Valley supplies to the greatest extent feasible.

Very truly yours,

  
Duane L. Georgeson  
Assistant General Manager

AER/wlb:OWNSVAL

Attachments

cc: Mr. Dennis Williams  
City of Los Angeles  
Department of Water and Power

## Comments on Owens Valley DEIR

Table 1: Projected Water Demands for City of Los Angeles

Draft Report, Municipal and Industrial Water Use in  
Metropolitan Water District Service Area: Interim Report No. 4,  
December 1990.

| Year | Population(a)<br>(Millions) | Normal Year Water Demand, AFY |                               |
|------|-----------------------------|-------------------------------|-------------------------------|
|      |                             | Existing (b)<br>Conservation  | Existing Cons.<br>and BMPs(c) |
| 1990 | 3.46                        | 698,709                       | 698,709                       |
| 1995 | 3.57                        | 737,135                       | 716,006                       |
| 2000 | 3.67                        | 773,459                       | 744,690                       |
| 2005 | 3.76                        | 803,661                       | 769,629                       |
| 2010 | 3.85                        | 832,446                       | 790,568 (d)                   |

(a) Based on SCAG Growth Management Plan

(b) Existing conservation include: 1981 plumbing code, and price changes from 1980 to 1990.

(c) BMPs, best management practices, include 1992 plumbing code, residential retrofit, home water audits, landscaping, government building retrofit, leak detection/repair, education, and future price changes.

(d) This projected water demands represents a per capita water use of 183 gpcd and estimated conservation savings of 120,600 AFY, or 13 percent of unrestricted water use.

Comments on Owens Valley DEIR

Table 2: MWD Projected Water Supply and Demand, AFY (Table 3-7)

|                    | 1995            |             | 2000            |             | 2010            |             |
|--------------------|-----------------|-------------|-----------------|-------------|-----------------|-------------|
|                    | Average<br>Year | Dry<br>Year | Average<br>Year | Dry<br>Year | Average<br>Year | Dry<br>Year |
| MWD Supply         | 2,140,000       | 1,790,000   | 2,150,000       | 1,780,000   | 2,150,000       | 1,760,000   |
| Demand for MWD     | 2,210,000       | 2,280,000   | 2,450,000       | 2,520,000   | 2,890,000       | 2,960,000   |
| Imported Supplies  |                 |             |                 |             |                 |             |
| Potential Shortage | (70,000)        | (490,000)   | (300,000)       | (740,000)   | (740,000)       | (1,200,000) |

Source: MWD, Nov. 1990, Regional Urban Water Management Plan

Although Los Angeles is entitled to a considerable portion of MWD's water supply, it has rarely made large purchases of water from MWD because of the City's access to less expensive water from Inyo and Mono counties. Historically, large purchases have only been made in times of drought. If the proposed project was not implemented, Los Angeles would purchase more water from MWD on a routine basis, rather than as a drought reserve.

MWD obtains its imported water supply from the Colorado River and the State Water Project (SWP). Its dependable supply of Colorado River water has declined as other states continue to develop and take their full apportionments of water. While DWR is currently developing several programs to increase the yield of the SWP, the yield developed by such programs will not be sufficient to meet projected demands. If Los Angeles begins to take more water from MWD on a routine basis, demand for SWP water will increase; thus increasing probabilities that supply deficiencies would be assessed to MWD and/or other SWP contractors.

SWP supplies are diverted from the Sacramento-San Joaquin Delta. The yield of the SWP is limited by the need to meet Delta water quality standards, by the capability to transfer water from the Sacramento River to SWP's Clifton Court Forebay in the southern part of the Delta, and by the absence of sufficient storage reservoirs north and south of the Delta. In an effort to increase SWP yield, DWR has released draft environmental documentation for its North Delta Program, South Delta Water Management Program, Los Banos Grandes, and Kern Water Bank Fan Element. In addition, DWR is pursuing various interim purchases to supplement SWP supplies. These efforts, however, will not produce sufficient yield to meet expected SWP contractor demands. It is anticipated that DWR will be required to assess deficiencies to SWP contractors. To the extent DWP increases its demands for MWD water, increased demands for SWP water, the size and frequency of SWP shortages will be increased.

As noted earlier, CEQA Guidelines indicate that an EIR must identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, then the EIR must identify the environmentally superior option among the remaining alternatives. The following paragraphs discuss the environmentally superior alternative for the Owens Valley project. The analysis does not account for environmental effects in Los Angeles and elsewhere in the state. Neither does it take account of the economic and social effects of the alternatives.

In general, as might be expected, alternatives that involve less groundwater pumping would reduce adverse effect on the Owens Valley environment. It is not clear is whether the proposed

project fits within the range of alternatives. Implementation of Alternative 1, the No Project Alternative, would allow the Valley environment to return to some semblance of the 1970 condition.

## 3. Water Supply For Los Angeles

In August 1989, Judge Finney issued a Preliminary Injunction requiring maintenance of the Mono Lake level at 6,377 feet. To comply, LADWP began releasing 100 cfs down Rush Creek and 20 to 45 cfs down Lee Vining Creek. A second hearing to consider the necessity of continuing the preliminary injunction began in June 1990.

In February 1990, the Third District Court of Appeal ordered Los Angeles to reestablish and maintain the fisheries that existed in the Mono Basin prior to the City's diversions. In response to that mandate, Judge Finney ordered the interim release of over 56,000 acre-feet per year down Lee Vining, Parker, Walker, and Rush Creeks until the SWRCB can set permanent fish flow releases. On June 14, 1990, Judge Finney entered a preliminary injunction requiring Los Angeles to maintain specified rates of flow in the four Mono Basin streams from which it diverts water. On June 19, 1990, Judge Finney stayed further action on the various lawsuits pending completion of the SWRCB's review or until September 1, 1993, whichever is first.

## PURCHASE OF WATER FROM MWD

The Metropolitan Water District of Southern California (MWD), formed in 1928, covers over ~~5,100~~ square miles of the coastal plain in Southern California, including portions of the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. MWD's purposes ~~are to~~ <sup>include</sup> develop<sup>ment</sup> ~~and sell~~ <sup>sale of</sup> water at wholesale for municipal and domestic use<sup>and purposes</sup>. It may sell surplus water for other beneficial purposes, including agriculture, ~~and replenishment of groundwater basins~~. There are 27 member agencies in Metropolitan, consisting of 14 cities, 12 municipal water districts, and one county water authority. The City of Los Angeles is one of these member agencies.

Each member agency has preferential rights to a portion of MWD's water supply. Preferential rights under Section 135 of the Metropolitan Water District Act are determined by the total accumulation of amounts paid to MWD by the member agencies on tax assessments and otherwise toward the capital cost and operating expenses of MWD's works. The amount expended by member agencies for purchase of water is not included in the determination. Each member agency's preferential rights are proportionate. The proportion is based on the amount it has paid compared to the total amount paid by all member agencies. As of June 30, 1989, Los Angeles has preferential rights to about 26 percent of MWD's water supply. MWD ~~expects to have~~ <sup>had</sup> 2,400,000 <sub>6</sub>



### 3. Water Supply For Los Angeles

acre-feet<sup>1</sup> of water available in 1990 resulting in a Los Angeles preferential right of about 600,000 AFY.

Generally, the amount of water purchased from MWD by LADWP in any year is the difference between the use in Los Angeles and the other sources of supply available to Los Angeles. The amount of MWD water purchased by LADWP since the second aqueduct was constructed has varied widely as shown previously in Table 3-6. Purchases have averaged 83,000 AFY with a minimum purchase of 19,000 acre-feet in 1978-1979 and a maximum purchase of 385,000 acre-feet during the 1989-1990 fiscal year. Typically, LADWP only takes a small portion of its preferential right from MWD. However, in 1989-1990, when the continuing drought is coupled with the imposition of a preliminary injunction halting LADWP's diversion of water from Mono Lake tributaries, purchases from MWD will approach 65 percent of preferential rights and over 50 percent of the City's entire water supply.

*MWD is increasing its demand-reducing water conservation measures by implementing Best Management Practices and Conservation Credit programs.*

The main sources of water supply available to the service area of MWD are: captured local surface flows; groundwater; imports via the Colorado River Aqueduct, the Los Angeles Aqueduct, and the State Water Project's California Aqueduct; and reclaimed water. The sources directly available to MWD are limited to the Colorado River and State Water Project (SWP) supplies and water made available through its Local Projects Program. ✓ Colorado River water is conveyed to Southern California by MWD's 242-mile long Colorado River Aqueduct. SWP water is conveyed from Northern to Southern California by means of the 444-mile long California Aqueduct. MWD's entitlement to water from the Colorado River Aqueduct totals 1.212 million AFY and SWP totals 2.0115 million AFY. *about 2.5 million AFY.* Furthermore, MWD's in 1990 *ed* although the SWP cannot yet deliver the full entitlement. At present, MWD imports a total of about 2.4<sub>6</sub> million AFY through these two aqueducts. The projected future supply and demand in the MWD service area are shown in Table 3-7.\*

Each of these two MWD water sources require energy for pumping to transport the water to Southern California. Each acre foot of water delivered from SWP to the MWD service area requires an average of 3,000 kwh, and the Colorado River Aqueduct requires 2,000 kwh. The January 1, 1990 population of the MWD service area is 14.9 million. It is expected to grow to 18.2 million by 2010 based on projections by the Southern California Association of Governments and the San Diego Association of Governments.

However, MWD's dependable supply from the Colorado River has been limited to less than 550,000 AFY since the Central Arizona Project began operations.

*\*(revised EXHIBIT 2)*

### 3. Water Supply For Los Angeles

#### MWD's Colorado River Supply

In accordance with a <sup>1964</sup> U.S. Supreme Court decree, the State of California (MWD, Native Americans, and several agricultural water districts) is limited to an annual supply of 4.4 million acre-feet from the Colorado River <sup>unless surplus or unused Arizona and Nevada water is made available to the Secretary of the Interior.</sup> Agricultural agencies have priority to beneficial consumptive use of 3.85 million AFY less the amount of water made available by Imperial Irrigation District under the <sup>1988</sup> Water Conservation Agreement and <sup>1989</sup> Approval Agreement with MWD. Another <sup>4</sup> 80,000 acre-feet must be subtracted for conveyance losses and for use of water by holders of present perfected rights, including Native Americans, leaving MWD with a dependable annual supply of <sup>616,110</sup> 576,100 acre-feet in 1995. <sup>Use of present perfected</sup> Additional <sup>higher priority water</sup> rights may reduce dependable annual supply to <sup>9</sup> 521,110 AFY.

Since the States <sup>of Arizona and Nevada</sup> <sup>ve</sup> <sup>their</sup> <sup>since Central Arizona Project operation began.</sup> of Arizona <sup>has</sup> not yet taken <sup>its</sup> full apportionment, surplus and unused water has been available from the Colorado River for MWD. The MWD has benefitted from these <sup>surplus</sup> conditions during the recent drought and has diverted up to 1.3 million AFY from the river. With continuing development of the Central Arizona Project, ~~and three successive years of below-normal runoff in the Colorado River watershed reducing the amount of water in storage,~~ the supply available to MWD in 1990 <sup>about 900,000</sup> is estimated to be <sup>and Nevada</sup> 994,000 acre-feet. As Arizona <sup>may</sup> <sup>less</sup> <sup>water</sup> takes more of <sup>is their</sup> its <sup>supply.</sup> apportionment, MWD will receive a reduced Colorado River supply.

#### MWD's State Water Project Supply

MWD's second major supply of water is obtained under its contract with the State of California for service from the SWP. MWD's maximum annual entitlement under the contract is 2,011,500 acre-feet. This entitlement was contracted ~~for in order~~ to meet increasing water demands resulting from population growth, and to compensate for the impending loss of a major portion of MWD's Colorado River supply. SWP deliveries for <sup>calendar year 1990 were</sup> ~~fiscal year 1989-90~~ are estimated to be 1.4 million acre-feet.

Bonds to construct the initial portion of the SWP were authorized by the State's voters in 1960, with construction <sup>taking place</sup> in the 1960s and 1970s. The principal facilities of the SWP are Oroville Reservoir on the Feather River, San Luis Reservoir in the San Joaquin Valley, the California Aqueduct and the North and South Bay Aqueducts, and terminal reservoirs in southern California.

### 3. Water Supply For Los Angeles

Water from the SWP serves municipal and industrial users in southern California, the San Francisco Bay Area, the Upper Feather River area, and agricultural users in the San Joaquin Valley. Thirty water agencies are entitled to water from the SWP. MWD holds the largest contract for approximately 48 percent of the SWP's yield.

The SWP is not completed. The State has contracts with public agencies, including MWD, for a total delivery of 4.2 million acre-feet. At present, the State has a dependable water supply of only about 2.3 million acre-feet, based on the current system capacity. Consequently, the SWP cannot now meet its contractual commitment to deliver the amount of entitlement water requested by the contractors. In order to deliver more water south of the delta, new facilities will be needed. The new facilities could include a cross-delta transfer facility, and additional pumps and storage capacity.

The California Department of Water Resources is using a staged approach for new facilities. New pumps at Harvey O. Banks Pumping Plant are currently under construction. Plans for other facilities are being developed, but none have been approved or built.

The amount of water that the SWP can deliver south of the delta may also be affected by the SWRCB's review of delta water quality standards. Diversion of water from the delta by the SWP and the federal Central Valley Project is limited by many factors, such as the need to meet water quality standards in the delta. The SWRCB's delta hearings began in 1988 and are expected to conclude in 1991. If the SWRCB promulgates new standards requiring the release of more water to the western delta and San Francisco Bay, there could be a reduction in SWP's ability to deliver water south of the delta. MWD currently projects an overall shortfall in supply ranging from 340,000 AFY to 780,000 AFY by the year 2000.

#### 3.5 WATER RECLAMATION

Water that has been used once can be treated and used again. This practice is referred to as water reclamation. In Los Angeles about two-thirds of the water used by homes and businesses is discharged as waste to the sewer system and ultimately the Pacific Ocean. If some of the wastewater is treated and reused, the need for other sources of water would be lessened; however, health, legal, cost and public perception considerations have limited wastewater reuse in Los Angeles to date.

## 6. Alternatives To The Proposed Project

Preferential Rights and Water Sources

Although the City of Los Angeles has a significant preferential right to MWD water, it has rarely relied heavily on it as a water source except during droughts since the second Los Angeles Aqueduct was completed in 1970. Water from the other sources available to Los Angeles is less expensive and of better quality than MWD water. LADWP has consequently striven to limit purchase of MWD water unless necessary due to reductions in import from Inyo and Mono Counties. Table 6-3 shows annual purchases from MWD by LADWP from 1963 to 1990. Los Angeles has a preferential right to approximately 26 percent of MWD's water supply. This preferential right is based on the total amount of property taxes paid by Los Angeles to MWD since MWD's inception.

To date MWD has not allocated water supply to its member agencies on the basis of preferential rights. Historically MWD has had sufficient water available to meet all requests from member agencies. Some agencies have taken advantage of the water available and have consistently purchased more than their preferential right, and they have developed a dependence on MWD water which exceeds their legal entitlement. Water demand within the MWD service area continues to increase while firm supplies are limited. When demand exceeds supply, MWD members who have come to rely on surplus conditions may be restricted to only their preferential right. It is possible that such restrictions could lead to challenges to the present structure of preferential rights.

MWD obtains its water from the Colorado River and from the State Water Project (SWP). Because of the relative costs of pumping Colorado River and SWP water, MWD has taken as much water from the former source as possible. In the future it is expected that MWD will obtain less water from the Colorado River and will therefore have to rely more heavily on the SWP.

MWD's Colorado River Water

Use of waters of the Colorado River Basin are managed and apportioned among the states that the river passes through, in accordance with a body of interstate compacts, legislation, contracts, court decrees and an international treaty known collectively as the "Law of the River." Under the terms of the Law of the River, California is entitled to use of 4.4 million AFY of Colorado River water and one-half of any surplus water that may be available from the river. Use of water in

California by holders of present perfected rights, including Native Americans is about 30,000 AFY. Agricultural users in the Imperial, Palo Verde, Yuma and Coachella valleys have a priority to a beneficial consumptive use of 3.85 million AFY of California's 4.4 million AFY apportionment, less the amount of water made available by Imperial Irrigation District under a <sup>1988</sup> Water Conservation Agreement and <sup>1989</sup> Approval Agreement with MWD. MWD has <sup>the next use of</sup> priority to <sup>1988</sup> 550,000 AFY, plus an additional 662,000 AFY of any water available for California. Under the operating criteria, prior to 1985, MWD was assured of sufficient water to satisfy its full entitlement. Thus, MWD could count on a Colorado River supply of 1,212,000 AFY.

As other basin states take more of the water to which they are entitled, less water will <sup>likely</sup> be available for California. In December 1985, the Central Arizona Project commenced operations and under <sup>reservoir system</sup> the ~~river~~ operating criteria, the Secretary of the Interior annually determines the availability of water. In the future, MWD will likely be limited to <sup>616</sup> 576,110 AFY, plus an unknown amount of surplus and unused water in certain years. MWD expects to receive <sup>about</sup> 900,000 acre-feet from the Colorado River in 1990, ~~and less in 1991~~ unless it is successful in negotiating agreements with the other California agencies to make additional water available.

MWD is pursuing a number of measures that would increase the amount of Colorado River water available to it in the future. A program was recently implemented in which MWD is funding a number of water conservation projects within the Imperial Irrigation District, and is receiving the conserved water. This program and other programs that may be implemented would partially offset the loss of water from the Colorado River. Consequently, MWD will need to rely more heavily on State Water Project water in the future as its Colorado River supply declines.

#### MWD's State Water Project Water

The SWP, as originally conceived and approved by the Legislature and the voters, is to ultimately deliver a firm yield of approximately 4.2 million AFY. Existing SWP facilities, however, are capable of delivering a firm yield of only 2.3 million AFY. This is substantially less than the 1990 demand for SWP of 3.1 million AF. MWD's entitlement to SWP yield amounts to approximately 1.1 million AFY.

Replacement Text for Section: MWD's State Water Project Water

The SWP, as planned, is to ultimately deliver a firm yield of approximately 4.1 million AFY by 1990 and 4.2 million AFY by the year 2000. Existing SWP facilities, however, are capable of delivering a firm yield of only 2.3 million AFY. This is substantially less than the 1990 demand for SWP water of 3.3 million AF or the projected year 2000 demand of 4.1 million AF. MWD's 2.01 million AF entitlement entitles it to approximately 48% of the available supply once the SWP contract's initial agricultural shortage provisions have been implemented.

With only existing facilities, the firm yield of the SWP would be expected to gradually decrease to approximately 2.2 million AFY in 2000 as upstream development reduces the amount of water available for export by the project. The 1959 Burns-Porter Act identifies facilities which would improve the conveyance of water through the Delta and thus increase the project yield. DWR has recently proposed the North Delta Program and the South Delta Water Management Program, to partially meet this commitment. The Environmental Impact Report/Environmental Impact Statements (EIR/EIS) for these programs indicate an increase 200 AF.

In order to store additional water south of the Delta, DWR has proposed the construction of the Los Banos Grandes Reservoir and implementation of Kern Water Bank. In 1984, the California Legislature authorized feasibility and planning studies for a Los Banos Grandes Reservoir. If constructed, the reservoir would provide additional storage south of the Sacramento/San Joaquin Delta. DWR states in the Los Banos Grandes Facilities EIR that such a surface water reservoir would increase the project yield by up to 260,000 AFY. DWR's Kern Water Bank-Kern Water River Fan Element EIR states that the Kern River Fan Element would increase dependable supplies by approximately 70,000 AFY.

Other projects for increasing the yield of the SWP are under study by the DWR. These include the possible use of interim CVP water, Delta Water Transfer facilities and local elements of the Kern Water Bank groundwater storage facility in the San Joaquin Valley.

The amount of water that the SWP can deliver south of the Delta may also be affected in the future by the State Water Resources Control Boards' (SWRCB) review of Delta water quality standards. Diversion of water from the Delta by the SWP and the CVP is strongly influenced by the need to meet water quality standards in the Delta. The SWRCB's Delta hearings began in 1987 and are expected to conclude in 1992. If the SWRCB promulgates new standards for the Delta that are stricter than those in effect today, the SWP's ability to deliver water south of the Delta could be reduced.

## 6. Alternatives To The Proposed Project

With only existing facilities, the firm yield of the SWP would gradually decrease to approximately 2.2 million AFY in 2000 as upstream development reduces the amount of surplus water available for export by the project. In 1984, the California Legislature authorized feasibility and planning studies for a Los Banos Grandes Reservoir. If constructed, the reservoir would provide additional storage south of the Sacramento/San Joaquin Delta sufficient to increase the firm yield of the SWP by up to 275,000 AFY. Also, in 1986, an agreement was reached between the California Department of Water Resources (DWR) and the United States Bureau of Reclamation, operator of the Federal Central Valley Project (CVP), to provide for further coordinated operation of the SWP and CVP. The Coordinated Operation Agreement, as it is known, improves the efficiency with which project water releases necessary to meet Delta water quality standards are made. This is accomplished by providing for further coordinated management of the two projects. The Coordinated Operation Agreement, has increased the firm yield of the SWP by an additional 200,000 AFY.

Other projects for increasing the yield of the SWP are under study by DWR. These include possible use of interim surplus CVP water, construction of Los Vaqueros Reservoir south of the Delta and construction of the Kern River Bank groundwater storage facility in the San Joaquin Valley.

The amount of water that the SWP can deliver south of the Delta may also be affected in the future by the State Water Resources Control Board's (SWRCB) review of Delta water quality standards. Diversion of water from the Delta by the SWP and the CVP is strongly influenced by the need to meet water quality standards in the Delta. The SWRCB's Delta hearings began in 1988 and are expected to conclude in 1991. If the SWRCB promulgates new standards for the delta that are stricter than those in effect today. The SWP's ability to deliver water south of the Delta could be reduced.

MWD's Other Water Supply Programs

MWD has developed several new and innovative water storage, transfer, reclamation, and conservation programs in the recent years to supplement its conventional water sources and to stretch existing supplies. Some of these are described below.

## 6. Alternatives To The Proposed Project

An agreement between MWD and the Imperial Irrigation District will improve Imperial's irrigation efficiency and provide <sup>106,110</sup> 100,000 acre-feet of water annually to MWD. <sup>ly, legislation</sup> A similar conservation program calling for the lining of the All-American and Coachella canals in Imperial and Riverside counties <sup>has been enacted</sup> was authorized by Congress. Southern California <sup>water agencies would fund the cost of</sup> will pay for the lining <sup>in return for the</sup> projects water saved, and the conserved water would be made available in accordance with the existing priorities to use of Colorado River water in California.

MWD and the Arvin-Edison Water Storage District developed a water storage project which, following necessary approvals, <sup>would</sup> <sup>have</sup> allow some of MWD's unneeded supplies in wet years to be stored by Arvin-Edison in an underground aquifer in the southeastern corner of the San Joaquin Valley. In later dry periods, MWD <sup>would</sup> <sup>takes</sup> will receive about 100,000 acre-feet annually of Arvin-Edison's surface supplies while the agricultural agency <sup>takes</sup> <sup>take</sup> the stored groundwater to meet its needs.

In 1981, MWD launched a local projects program aimed at increasing the use of reclaimed water in Southern California. Under this program, MWD provides financial assistance to qualifying projects. As of <sup>December 23</sup> ~~March~~ 1990, <sup>61,185</sup> ~~41,585~~ projects totaling AFY had been approved and <sup>19</sup> ~~12~~ others, expected to reuse <sup>35,125</sup> ~~35,800~~ AFY were under consideration.

MWD also provides financial assistance to member agencies who implement programs to promote water conservation primarily through fixture modification (low-flow shower heads, etc.). This program, called the Water Conservation Credits Program, provides \$154 per AF or up to 50 percent of the projected cost, whichever is less, toward the implementation of approved water conservation measures by MWD agencies or subagencies. Adopted in September, 1988, the program is projected to provide water savings through conservation of up to 250,000 AFY by the year 2010.

### Conclusions

Despite uncertainties with respect to the issue of preferential rights and to MWD's share of Colorado River and SWP water, it is clear that Los Angeles could rely on MWD more heavily as a water source than it has in the past. Use of additional MWD water would thus be an optional replacement source of water for Los Angeles if an alternative were to be adopted that would provide LADWP with less water from the Owens Valley than it would receive under the proposed project. \*



## 17. CEQA Considerations

supply treated groundwater to each of the town water systems up to certain specified amounts at no cost. At the end of the fifth year, the systems will be transferred to Inyo County (or to another public entity), but LADWP will permanently supply untreated groundwater to each town system up to certain specified amounts at no cost. The transfer of the town water systems is more fully described in Chapter 5, Project Description.

The provision of groundwater at no cost to each of the town water systems will allow Inyo County (or another public entity) to have the option of maintaining water rates at a level substantially below the rates that would have to be charged if all of the costs of pumping groundwater and of maintaining the well equipment were to be passed along to the users. The rates could also be substantially less than the rates that would be charged by Los Angeles if the systems were to remain in the control of Los Angeles. The transfer of the town water systems thus will mitigate for the long-term reduction in water available in the soil in these towns since residents will have the option of supplying water to vegetation in the towns at a lower cost than if the systems remained under the ownership and operation of Los Angeles.

## 17.6 RELATIONSHIP TO OTHER WATER SUPPLY PLANS

Table 17-1 summarizes other water supply actions in California, the outcomes of which could affect and/or be affected by the increased groundwater pumping plan evaluated in this report.

These actions include:

- o San Francisco Bay-Sacramento Delta water quality <sup>and water rights</sup> ~~control plan~~ hearings currently being held by the State Water Resources Control Board (SWRCB) in Sacramento. The outcome of these hearings is to be <sup>rights discussions</sup> ~~a water quality control plan~~ which promulgates Delta water quality standards intended to protect all beneficial uses of Delta water, including in-stream uses and water to Delta exporters.   
*other measures*
- o Proposed expansion of the State Water Project (SWP) in the form of <sup>Delta water transfer</sup> ~~cross Delta channel~~ <sup>enlargements</sup> and construction of Los Banos Grandes Reservoir <sup>and implementation of the Kern Water Bank</sup> by the California Department of Water Resources.   
*improvements*
- o Revision of LADWP's water rights licenses in Mono Basin by SWRCB. This revision involves the establishment and maintenance of instream flow standards in the Mono Lake tributaries from which LADWP diverts water, and the establishment and maintenance of water elevation standards and salinity standards in Mono Lake to provide appropriate protection for public trust resources and beneficial uses of Mono Lake.

- o Implementation of a 1989 water conservation agreement between Metropolitan Water District of Southern California and Imperial Irrigation District (IID). This action involves
  - ? Metropolitan paying for concrete lining of earthen canals owned by IID, as well as new storage facilities for water that is conserved. In return, MWD will receive a minimum of 100,000 acre-feet of water from IID annually, and more in wetter years.
- o Proposed water storage and exchange agreement between MWD and Arvin-Edison Water Storage District (A-E) near Bakersfield. As with the IID "water trading" agreement, MWD
  - ? will pay costs of improving spreading basins for Arvin-Edison (A-E) for storage of surplus wet year water exported through the Friant-Kern and Cross-Valley canals. A-E obtains stabilized groundwater supplies consistently and Metropolitan receives a minimum of 100,000 acre-feet of water during dry years stored in A-E's aquifers.
- o ✓ Central Arizona Project.

All of these actions affect future of water supply planning for Los Angeles. The Metropolitan Water District (MWD) is currently short of water supply, although MWD stands to have greater access to water supplies as a result of expansion of the cross-Delta channels and construction of the Los Banos Grandes Reservoir. Since LADWP is a member agency of the MWD, it will have access to significant amounts of the "new" water supplies created through the conservation-for-water-trade agreements MWD has undertaken with IID and Arvin-Edison, possibly as much as 80 percent of the increment conserved in the Imperial Irrigation District, or some 80,000 acre-feet.<sup>1</sup>

LADWP stands to lose water from the water rights decision in the Mono Basin. LADWP is the predominant diverter of water in the Mono Basin, and its rights will be limited to the point where they are consistent with public trust goals, instream uses (e.g., fish and other aquatic forms of life) and salinity standards in the Mono Basin. It is unknown at this time how much water LADWP will lose as a result of this decision.

The outcome of the Bay-Delta hearings before the SWRCB is unknown. The hearings were begun at the direction of the State Third District Court of Appeal in early 1987 in the wake of the "Racanelli Decision" which required the SWRCB to re-evaluate its 1978 Water Right Decision 1485 for the Delta and Suisun Marsh. The Court specifically required the SWRCB to review water quality standards and water rights licenses from a "global perspective" which incorporated the water needs of instream uses into its interpretation of beneficial uses. The degree to which water quality

standards implemented by the new Bay-Delta water rights decision to be issued by the SWRCB protects instream uses will determine <sup>any</sup> ~~the~~ loss of water available for other beneficial uses including export to the Central Valley and Southern California.

The Central Arizona Project is increasing its use of water from the Colorado River. When Arizona use reaches its full entitlement, MWD, which wholesales water from the Colorado River, will see its entitlement decline by about 60 percent, from 1.3 million acre-feet in 1989 to about 470,000. LADWP is entitled to about 26 percent of MWD's total supply, so the effect of the Central Arizona Project on Los Angeles' water supply outlook will be substantial.

LADWP will continue its water conservation programs outlined in Chapter 3, Water Supply for Los Angeles. LADWP believes that these programs will simply delay the arrival of increased demand associated with population growth. The population has been growing at a rate of 38,000 per year; therefore, a 10 percent reduction in use due to conservation would occur in 10 years. Since Los Angeles envisions implementing new conservation programs determined to be feasible, even if the proposed project is implemented, conservation is not viewed as a true alternative to replace water from Owens Valley. Efforts to replace potable water with reclaimed wastewater will continue but again are not expected to be sufficient to make up shortfalls in the next several decades. If the regulatory climate changes so that reclaimed wastewater can be injected into groundwater basins used for drinking water supplies, the potential for reclamation would be improved.

Evaluation of the cumulative impact of these actions in combination with the proposed project evaluated in this report is complicated and fraught with uncertainty. In instances such as the Bay-Delta hearings and the Mono Basin water rights case for LADWP, rights to water have yet to be defined, which makes quantification of cumulative impacts impossible. In a qualitative sense, however, both instances involve establishing or modifying water quality standards to provide increased protection for instream uses. This means that it is likely that less water will be available in the future for export to Los Angeles from the Delta and the Mono Basin.

On the other hand, agricultural water conservation and conjunctive use projects undertaken by MWD are projected by MWD to yield <sup>up to</sup> ~~upwards of~~ 200,000 acre-feet in a dry year to the MWD

service area. With a preferential right to 26 percent of MWD supplies, LADWP could receive up to about 53,000 acre-feet of water from MWD from these projects.

To meet projected demand requirements of Los Angeles' growing population, LADWP looks to Owens Valley and MWD as the primary means for increasing water supply to Los Angeles, as compared to its pre-1970 water supply. LADWP's control of water rights in Owens Valley makes the Valley's water resources the most stable source of supply for the City outside the Los Angeles Basin. The quality of water from the Los Angeles Aqueduct is better than water from either the State Water Project or the Colorado River. It is also less expensive on a cost per unit of production basis and generates electricity for Los Angeles residents, whereas the other two projects consume more energy than they produce.

A qualitative balance of water supply gains and losses from the cumulative evaluation of water supply actions in the California water system suggests that cumulative changes will be neutral, that is that gains from conservation, reclamation and conjunctive use will be balanced by losses to instream uses or other beneficial uses in the Bay-Delta hearings. Water supply gains will likely be offset by losses resulting from more restrictive water quality standards for protection of instream uses in the Bay-Delta estuary and Mono Basin.

#### 17.7 AREAS OF CONTROVERSY

The primary impact of the proposed project is on the vegetation of the Owens Valley. While there are many anecdotal accounts of how the vegetation has changed since 1970, there is little quantitative data. Between 1920 and 1970, changes in the Valley's vegetation were largely the result of surface water management practices and changes in agricultural land use. In 1970, when groundwater pumping was increased, a new factor entered the equation. Experts differ regarding the interpretation of existing data, including aerial photographs, to determine the cause and extent of some vegetation changes. However, all known areas of significant impact have been identified in this Draft EIR and will be mitigated through direct or compensatory mitigation.

Some Owens Valley residents believe that the Valley should be restored to conditions that existed prior to operation of the second aqueduct in 1970 or prior to the operation of the first aqueduct in 1913. Inyo County and LADWP have agreed that a final court judgement will be entered that

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## **RESPONSES TO COMMENTS LETTER B12**

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### **RESPONSE B12-1**

Comment noted. Thank you for your interest and participation in the EIR process.

### **RESPONSE B12-2**

Comment noted. No further response is required.

### **RESPONSE B12-3**

Comment noted. The estimate of uncounted population presented in Table 3-1 is for illustrative purposes and was based on the best information available at the time.

### **RESPONSE B12-4**

Comment noted. No further response is required.

### **RESPONSE B12-5**

Final state-wide BMPs are not yet available at the time of preparation of this Final EIR.

### **RESPONSE B12-6**

Text corrections are noted and many are included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE B12-7

Text corrections are noted and many are included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE B12-8

Text corrections are noted and many are included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE B12-9

Comment noted.

**Letter B13**

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**Big Pine Paiute/Shoshone Band of Indians**

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RECEIVED

FEB 1 1991

EIP ASSOCIATES  
SAN FRANCISCO, CA.

COMMENTS ON ENVIRONMENTAL IMPACT REPORT  
CONCERNING 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

Submitted on behalf of the Big Pine Paiute/Shoshone Band of  
Indians, Big Pine, CA.



## PREFACE

These comments are submitted by the Big Pine Paiute/Shoshone Tribe without prejudice to the right of the Tribe to challenge the final EIR and the Long Term Groundwater Management Agreement in any appropriate forum pursuant to federal, state or tribal law. In addition, these comments should not be construed as a waiver of the Tribe's right to demand the preparation of an Environmental Impact Statement ("EIS") which may be required by the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. §§4321, et seq., and implementing regulations.

It appears that this particular EIR is being prepared because the earlier reports were deemed inadequate by the Third District Appellate Court. One of the areas of contention is the actual description of the proposed project. As stated in County of Inyo v. City of Los Angeles (1981) 124 CA3d 1, at 9:

As we have said [a]n accurate stable and finite project description is the sine qua non of an informative and legally sufficient EIR.

In this EIR the LADWP has described the project in broad terms:

The proposed project analyzed in this EIR consists of all water management practices and facilities that were implemented or constructed in the Owens Valley to supply water to the second aqueduct which was completed in 1970, together with the project and water management practices contained in the agreement for Owens Valley and Inyo County.  
[Emphasis added.]

1 — Unfortunately the LADWP has attempted to narrow the scope of the

project and this EIR by misstating the amount and types of water rights held by the Owens Valley tribes and the federal government. These misstatements are the basis for the City's failure to conduct any analysis whatsoever concerning the effects the project and agreement will have on Indian lands and water rights. In addition, CEQA clearly requires a mitigation analysis which considers avoiding impacts entirely, limiting impacts, rectifying impacts and compensating for impacts. This analysis is also missing from this EIR.

This is not the first time LADWP has attempted to avoid mitigating the impacts of this project. As noted by the Court in County of Inyo v. City of Los Angeles, supra at p. 9,

An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment whether the purpose can be achieved.  
[Emphasis added.]

By misstating the types and amounts of water rights held by the tribes, the EIR has violated the Court's prohibition described above.

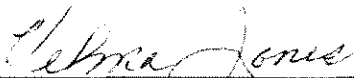
It must also be noted that the implication that any effects on Indian lands and water rights will be mitigated pursuant to the Long Term Groundwater Management Agreement is disingenuous and simply wrong. Neither the LADWP nor Inyo County has contacted any of the tribes seeking input regarding the needs of the various tribes or comments about the various sections of the agreement. Neither the tribes nor the federal government have been asked to be a party to the agreement, and without the consent of these entities the City and County have no jurisdiction

to enforce the agreement against them. In other words, the agreement will not mitigate the effects LADWP's water gathering activities may have on the Owens Valley Indian tribes and cannot therefore be considered as a Valley-wide mitigation measure.

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The County of Inyo and LADWP have a choice to make. They must either amend the current agreement and EIR to specifically exclude Indian tribes, lands and water rights or they must request the involvement of the five Owens Valley Tribes and the federal government as full partners in the development of a workable project and agreement that truly protects the environment of all the Owens Valley and guarantees the legal rights of all the parties. The decision undoubtedly rests with Inyo County and LADWP. Regardless of the decision reached, the present proposed EIR is clearly inadequate because it fails to contain a complete analysis of the effects the proposed project and agreement will have on Indian lands and water rights and fails to provide a complete mitigation analysis of these effects.

While the Big Pine Tribe is willing to discuss the issues raised in this comment with the LADWP and County of Inyo, it should be recognized however that the Tribe will not allow either the County or LADWP to make unilateral decisions concerning tribal water rights and the reservation environment.

  
\_\_\_\_\_  
VELMA JONES, Chairperson  
On Behalf of the Big Pine  
Tribal Council

**I. COMMENTS CONCERNING THE AGREEMENT BETWEEN  
THE COUNTY OF INYO AND THE CITY OF LOS ANGELES  
AND ITS DEPARTMENT OF WATER AND POWER ON A  
LONG TERM GROUNDWATER MANAGEMENT PLAN FOR  
OWENS VALLEY AND INYO COUNTY.**

1. Section I (Management Areas) fails to mention whether Indian reservation lands and off-reservation lands containing Indian water rights are included in these management areas. Clearly they should not be included since the tribes and the United States are not parties to the agreement and the County and City have no jurisdiction over these lands and water rights. Since neither the County, the City of Los Angeles, nor the Technical Group has jurisdiction over these lands and water rights the agreement should specifically exclude these lands and water rights unless and until the tribes and federal government become parties to the agreement.

2. The agreement mentions vegetation studies and inventories conducted between 1984 and 1987 (Section II, Management Maps). The agreement fails to specifically state whether Indian lands and off-reservation lands containing Indian water rights were included in these studies. If they were not, the types and amounts of vegetation listed in the agreement are inaccurate.

In addition, CEQA guidelines (Guidelines Section 15150, Subd. (b)) clearly require this vegetation study be available at a public place or building. At a minimum the EIR must state where the incorporated documents will be available for inspection

and at the very least the documents must be available at the local LADWP office.

7 In fact (see, Declaration of Jennifer Duncan) the vegetation study is not a report readily available to the public and no single document exists that can be reviewed by the public. Since this study is the cornerstone of the proposed rotational pumping plan, the Tribe finds it unbelievable that this "report" is not available. LADWP's failure to comply with these CEQA guidelines renders the proposed EIR inadequate on its face.

8 3. The overall goal of the management strategy (III, Management Strategy), which is "the managing of water resources within Inyo County to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County", directly conflicts and interferes with the terms of the 1939 Land Exchange Agreement between the City of Los Angeles and the United States Government.

9 The City of Los Angeles agreed to provide prime agricultural lands to the various tribes and it appears that the use of vegetation as an indicator for pumping rates would allow the degradation of the quality of these prime agricultural lands. It should also be recognized that the use of vegetation study conducted during 1984-1987 as the baseline indicator would not be accurate for the Benton or Fort Independence Tribes (tribes not subject to the Land Exchange Agreement) if the studies did not include those lands.

4. While the stated goal of the groundwater mining section of the agreement is to avoid long-term groundwater mining (Management Strategy, B. Groundwater Mining), the definition of groundwater mining seems to allow for short-term groundwater mining which may affect reservation lands and off-reservation Indian water rights. Neither the agreement nor the proposed EIR address this issue. It should also be noted that this definition of groundwater mining is not applicable to the Indian water rights on- and off-reservation.

Since short term groundwater mining and the effect this may have on Indian lands and water rights is not even mentioned, it is also obvious this EIR fails to discuss any proposed mitigation of these possible effects.

5. Part III, Section D. Monitoring, fails to even mention tribal lands and water rights on and off the reservations. The language in the agreement seems to imply that all reservation lands and tribal water rights will be protected through monitoring conducted by the Technical Group. The Technical Group has no jurisdiction over these Indian land and water rights. If LADWP and the County choose to involve the various tribes and federal government in the monitoring process, then the tribes and federal government must become parties to the agreement. If LADWP and the County choose not to include the tribes and the federal government, then the agreement should specifically state that Indian lands and water rights are not being monitored and protected in this agreement.

6. Even though no monitoring has occurred on the Big Pine



Reservation, the Tribe has conducted a survey of the vegetation adjacent to the Reservation and reviewed data to determine the nearest monitoring locations. A survey of the vegetation off, but adjacent to, the Reservation reveals that areas that receive surface application of water (such as those to the east of the Big Pine Canal) have dense and vigorous vegetation, but areas not receiving such surface water resemble the derelict Reservation land. There are 5 LADWP pumps and 2 monitoring stations within 1.5 miles of the Big Pine Reservation - pumps 378, 389 and 210 to the north of the Reservation and pump 220 to the south. Monitoring site BP1, with its test well, is about 1/4 mile to the north of the northeast corner of the Reservation. Site BP2, with a test well, is about 1.5 miles SE of the southeast corner of the Reservation. All these pumps have been shut off due to projected soil moisture deficits. The data (LADWP January, 1991) report soil moisture measurements on both monitoring sites to be zero or negligible. The required plant moisture (an indication of amount of live plant cover) at BP1 declined by 90% since monitoring of it began in 1989, from 9.4 cm. of water to 0.9 cm. At BP2, required moisture was 13.4 cm. of water in 1987, and is now 6.7 cm.

These data indicate a decline in live cover, or at least in leaf area index, on 2 sites in close proximity to the Reservation. Although the vegetation at these monitoring sites was mapped as Type B (BP2) and Type C (BP1), the current moisture requirement on both sites is well below that required by Types B and C vegetation (Green Book, at 44). This would suggest that a conversion from Type B and C vegetation to Type A has occurred

according to the description of the methods used to determine vegetation type based on moisture requirement (ET) (at 10-25).

The Tribe notes there are acknowledged impacts to areas adjacent to the Reservation, and areas east of the Reservation are included in a proposed re-vegetation project (see, 10-57 - 10-68 and Big Pine Regreening mapped on E-20). It is suggested that similar impacts were suffered on Reservation lands immediately adjacent to these impact areas. No monitoring or mitigation of these on-reservation impacts has been discussed in this EIR.

7. The agreement once again fails to address Indian lands and water rights in subpart F. Mitigation. The agreement should specifically exclude the tribes and federal government from the mitigation process or include the tribes and federal government once they have agreed to become parties to the agreement.

Whether the tribes and federal government become parties to the agreement or not, LADWP must mitigate the effects the proposed project and agreement may have on the tribes. The agreement specifies that changes or declines in vegetation, even if they are measurable and attributable to water management practices, must also be determined to be significant before a mitigation plan is required. "Significant" is then defined using certain criteria listed in the agreement. Since the Tribe is not a party to the agreement, the definition of "significant" used in the agreement is not applicable, nor is it acceptable to the Tribe.

Evidently recognizing its failure to conduct studies on the Reservation, LADWP has attempted to avoid the mitigation analysis

required by California Administrative Code §15270 by simply misstating who holds title to certain water rights claimed by the Tribe.

16 8. The Private Wells section of the agreement (subpart G.) fails to specifically mention the effects of LADWP pumping on Indian water rights on- and off-reservation, nor does the agreement clearly spell out how private wells will be protected. It must be specifically stated that Indian water rights are not subject to determinations made by the Technical Group unless and until the tribes and United States government become parties to the agreement and have representation on the Technical Group committee. In addition, the LADWP must determine the impacts of LADWP pumping and provide the required mitigation analysis pursuant to California Administrative Code §15270, regardless of tribal involvement in the agreement.

17 9. Subpart H. Indian Lands, is totally inadequate. The implication made in this subpart is that the only water the tribes have a right to receive is the 4 acre feet per acre supplied by LADWP pursuant to the 1939 Land Exchange. This is disingenuous and simply wrong. As previously stated, and recognized by the United States government, the tribes have appropriative, riparian, surface, groundwater, and reserved Indian water rights on and off the various Owens Valley Tribal Reservations. These rights have yet to be quantified.

This subpart should be rewritten to make clear that the County and LADWP have chosen not to include the tribes and the federal government as parties to the agreement, and the agreement

has no effect on the tribes' water rights. It is also suggested the tribes' water rights off-reservation be specifically mentioned and recognized by LADWP. In the alternative, the agreement can be modified to include the tribes and the federal government as parties, if so desired by LADWP, Inyo County, Owens Valley Tribes, and the federal government.

10. The Enhancement/Mitigation Projects, subpart X. of Projects and Other Provisions, fails to discuss any proposed projects on Indian lands or any projects designed to protect the tribes' off-reservation water rights. Once again, the agreement should specifically state whether tribal lands and water rights are to be included in additional proposed mitigation projects. If the County and LADWP choose to include these lands, the tribes and the federal government must be made parties to the agreement and be represented on the Standing Committee and Technical Group.

This section clearly points out the failure of the County and City to consider the effects on Indian lands and water rights and what actions are necessary to mitigate those effects. It should also be noted that the EIR does not contain any analysis of the impact the proposed enhancement/mitigation projects may have on Indian lands and water rights. The mitigation analysis of these effects is also missing.

11. The General Assistance to the County, subpart D. of Section XIV Financial Assistance, states that money is being provided to Inyo County to assist the County in providing services to its citizens. It is assumed these payments are being made in recognition of the negative effects the LADWP's water

gathering practices have had on economic development within the County. If this is the case, the mitigation of these negative impacts must include financial assistance to the five tribal governments who are also experiencing revenue shortfalls because of limited economic development opportunities. Payments to Inyo County do not mitigate the financial impact of LADWP's water gathering activities on the various Owens Valley reservations.

20 — 12. At Section XV, Release of City-Owned Lands, the City agrees to provide for the release of certain lands near towns in the County. The reason stated for this release is it will provide "for the future orderly development of towns within the County". The agreement fails to recognize that land is also desperately needed by the Owens Valley tribes to allow for "orderly development".

The Native American is the most stable and fastest growing segment of the population in Inyo County. In order to develop "orderly" housing and economic development plans, LADWP should agree to release lands surrounding the Owens Valley reservations to the Tribes.

The release of lands to the County and City of Bishop does not mitigate the negative effects of the City's water gathering activities that have inhibited orderly growth and planning on the Owens Valley reservations. This proposed release of lands to the County of Inyo and City of Bishop may also have impacts on the various tribes. These impacts have not been analyzed nor has a mitigation analysis of these impacts been included in the EIR.

21 — 13. The Tribe suggests Section XXI, No Effect on Non-Party

Legal Rights, be amended to specifically mention Indian tribes and the federal government.

14. The Tribe requests that Section XXII, No Effect on Existing Water Rights, specifically mention the water rights of the tribes on and off the reservation and include recognition by LADWP that the tribes own off-reservation water rights pursuant to the 1939 Land Exchange Agreement.

15. The Dispute Resolution section should specifically mention that the tribes and federal government are not required to follow the dispute resolution process in order to vindicate their legal rights unless and until they become parties to the agreement.

The Tribe would also point out that the process seems to allow specific performance as the only remedy for violations of the agreement. The Tribe suggests the process include the awarding of damages as an additional remedy in order to encourage compliance with the provisions of the agreement and orders made during the dispute resolution process.

II. COMMENTS CONCERNING THE PROPOSED PROJECT  
CONSISTING OF ALL WATER MANAGEMENT PRACTICES  
AND FACILITIES THAT WERE IMPLEMENTED OR CON-  
STRUCTED IN THE OWENS VALLEY TO SUPPLY WATER  
TO THE SECOND AQUEDUCT WHICH WAS COMPLETED IN  
1970.

A. Chapter 1. Summary

1. At page S-6 it is stated that, "The vegetation conditions documented during the 1984-87 vegetation inventory serve as

the base for comparison for determining whether decreases and changes have occurred". However, the next paragraph states, "that groundwater pumping and surface water management would be conducted in a manner that would avoid significant decreases and changes in vegetation from conditions that existed during the 1981-82 runoff year or significant decreases in water-dependent recreational uses and wildlife habitat".

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If the vegetation study was not conducted until 1984, it does not seem appropriate to use 1981 as the base year for determining the decreases or changes in vegetation. In other words, no data seems to be available to determine what the vegetation was like in 1981; therefore the Technical Group has no base data to determine significant decreases or changes. This needs to be more clearly explained in either the summary or vegetation chapter of the EIR. It must also be noted that the 1981-82 runoff year followed an extremely dry period occurring in the late 1970's. Since vegetation recovers slowly after experiencing severe stress, the 1981-82 runoff year is simply not appropriate for use as a base index year. See also, page 10-28, ¶1 which states that the 1981 runoff year was slightly below normal with approximately half the normal water released from the aqueduct. The water tables were also described as lower than normal

As previously stated, the Tribe is also concerned about the apparent lack of a vegetation study that can be reviewed by the public. The failure to make this study available at the local LADWP office renders the EIR inadequate and out of compliance with CEQA guidelines. The EIR cannot incorporate a report by

reference when the report is not made available for review.

**B. Chapter 2. History of Water Development in Owens Valley**

1. The statements made at page 2-9 concerning the water rights owned by the United States and held in trust for the benefit of the Owens Valley Indians are wrong. Contrary to the assertion that the Land Exchange "gave Los Angeles the water rights the Indians possessed", the Land Exchange specifically states no water rights were traded by either party involved in the exchange. Therefore, the United States government owns unquantified water rights held in trust for the Owens Valley Indians on the 2,914 acres of land traded to the City of Los Angeles. This includes, but is not limited to, appropriative, riparian, surface, groundwater, and reserved Indian water rights. It should also be noted the Big Pine Tribe has 2 domestic wells located on the reservation. The other Owens Valley tribes also have domestic wells and unquantified water rights off their reservations.

One of the major shortcomings of the proposed project, the long-term water agreement, and the proposed EIR is the assumption there are no significant water rights holders in the Valley other than the Los Angeles Department of Water and Power. The Big Pine Tribe disputes this assumption and points to its water rights held on the 2,914 acres off-reservation and its water rights held on the reservation as evidence that Owens Valley tribes also own significant water rights.

The Tribe believes strongly that the effects of the City water gathering activities and the long-term water agreement on



these water rights have been completely ignored in the proposed EIR. Failure to include an analysis of these impacts and effects leaves the proposed EIR incomplete and out of compliance with CEQA requirements.

2. At page 2-9 the EIR specifically states, "From 1930 onward management policies of Los Angeles limited economic growth and population expansion in Owens Valley". This limiting of economic growth and population expansion is clearly part of the cumulative effect of the City's water gathering practices. These limitations have had drastic effects on the Big Pine Tribe which have not been mitigated or addressed in this proposed EIR.

#### **C. Chapter 3. Water Supply in Los Angeles**

1. Section 3.3 of this chapter discusses the various water conservation programs and practices developed by the Department of Water and Power. The Tribe suggests that Inyo County consider the development of similar programs in Inyo County. If it is possible to measure the amount of water saved in Inyo County, it is suggested this amount of water be used to expand the enhancement/mitigation program in the Valley.

#### **D. Chapter 5. Proposed Project**

1. In reviewing the proposed project section of the EIR, it is clear the parties have chosen to implement a rotational pumping plan based on the assumption the City of Los Angeles owns all the water rights in the Owens Valley. As previously stated, the Big Pine Tribe disputes this notion and points to the 1939 Land Exchange which clearly recognizes that the Owens Valley tribes retain water rights on the lands traded to the City of Los An-

geles.

In addition, the use of vegetation as a baseline indicator of environmental degradation directly conflicts and interferes with the terms of the 1939 Land Exchange. The City of Los Angeles agreed to provide prime agricultural lands to the tribes and it appears the use of vegetation as an indicator for pumping rates would allow the degradation of the quality of these prime agricultural lands since the vegetation would be measured against the vegetation present during the 1984-87 LADWP study rather than 1939 when the Land Exchange was signed.

While the Benton Tribe and the Fort Independence Tribe were not part of the Land Exchange, the use of the 1984-87 study would not be accurate or applicable to the vegetation on these reservations unless the study specifically included these reservations and the Tribes were actual parties to the agreement.

Since the basic assumption behind the proposed project and the long-term groundwater management agreement is incorrect, the Tribe questions whether the project and agreement are workable without input from the Owens Valley tribes and the United States government. The Big Pine Tribe will not allow the City of Los Angeles and Inyo County to unilaterally develop plans and programs affecting the Tribe's water rights and reservation environment. However the Tribe would consider the possibility of joining the County and City as an equal partner in the Long-Term Water Management Agreement as long as the Tribe's concerns and rights are addressed and recognized in an amended agreement.

2. At page 5-3 it is stated that the management areas are

defined as a result of estimating the areas affected as a result of pumping under "worst case" conditions. "Worst case" conditions are defined as maximum pumping in three consecutive critically dry years. Page 9-73 defines the critically dry year as the 1977-1978 runoff year. However, page 10-55, ¶1 states that in 1990 the groundwater levels were near the lowest levels observed during the drought of the mid-1970's. As we are currently experiencing a fourth year of drought following already critical conditions, perhaps the use of "worst case" conditions should be redefined as more severe than three consecutive critically dry years definition used in the groundwater model for the EIR.

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3. Page 5-5, ¶2 states that areas of riparian vegetation such as those dependent on springs and flowing wells are to be identified for monitoring purposes. Page 10-63 continues by stating that the vegetation near springs and seeps will be maintained at the approximate conditions of 1984-1987.

In general, and specifically for the Big Pine area, pumping increased dramatically for the period beginning after 1970. One effect of this increase in pumping was reducing the flow from the nearby Fish Springs from an average of about 15,000 AFY to zero. Even if the period of 1981-82 or 1984-87 is used for reference, a significant impact would have already occurred to the vegetation (and to the water table) by the reference period. This is highlighted on page 10-49 which states that even if the water management were to revert to pre-project operations, the affected vegetation could require a time period of many decades to return to pre-1970 conditions.

The impacts to the vegetation dependent on springs and flowing wells should be compared to conditions existing prior to commencement of any pumping in the area. Likewise, all other areas of significant environmental value that existed prior to pumping should be monitored for changes that have occurred or may occur after pumping.

4. At page 5-5, the EIR defines groundwater mining in terms of a management goal/method. This definition is not applicable to Indian lands and water rights, including the Tribe's water rights on the lands traded to LADWP in the 1939 Land Exchange. Due to the scattered nature of these traded lands within the various management areas, the Tribe questions whether this management method is in reality workable. The Tribe at this time will not agree to subject its lands and water rights to this management method concerning groundwater mining.

The Tribe would note however that this definition does not prohibit extraction of groundwater and subsequent lowering of the groundwater table for extended periods. Particularly with wells into deep, confined aquifers, pumpage effects on vegetation may not be apparent until long after pumping begins. This would allow continued pumping from the deep aquifer since vegetation effects would not limit pumping. Also, the original volumes of water in excess of recharge removed prior to 1970 are not addressed by the EIR. An extended dry period, during which groundwater pumpage is highest and recharge is lowest would cause permanent damage to vegetation. Historic trends show long extended dry periods. Recurrence of such periods would kill plants

dependent on groundwater. The 20-year period should therefore be reduced to a 5-7 year period.

Since the first twenty year period has already elapsed, the limitation on withdrawal not exceeding recharge for a twenty-year period will provide a volume balance only within the increased pumping stage of the project. Significant damages have occurred due to the increase in pumping after 1970 and the subsequent lowering of the water table. Additionally it should be clearly stated whether the twenty-year volume balance of the criterion for limiting vegetation damage has priority for determining whether a particular water level is permissible.

5. At page 5-6, the management procedures for the project are discussed. The Tribe notes the Inyo County/Los Angeles Standing Committee and the "Technical Group" have no jurisdiction over the Tribe's water rights or reservation, therefore the Tribe is not subject to the Technical Group's determinations of significant adverse changes or monitoring practices.

6. At page 5-14 it is stated:

The agreement provides that in the future, groundwater pumping will be managed to avoid significant decreases or changes in vegetation attributed to groundwater pumping, other significant environmental effects, groundwater mining and significant adverse effects on water quality and water quantity in all wells not owned by Los Angeles. These provisions apply to Indian lands in the Owens Valley.

The underlined statement is false. No provision of the agreement is binding or applicable to Indian lands and water rights since the County of Inyo and the City of Los Angeles have no jurisdiction over the Owens Valley tribes. The Big Pine Tribe

will not allow the County or the City to interfere with or supersede the Tribe's right to protect its reservation environment and water rights.

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7. At 5-18, the EIR discusses the various enhancement and mitigation projects implemented between 1984 and 1990. The Tribe has never been contacted concerning the need for these types of projects, even though the agreement implies the enhancement/mitigation projects mitigate the various environmental problems on the reservation caused by the City's water gathering activities, i.e., the cumulative impacts of blowing dust. The Tribe questions how LADWP can develop a proper enhancement/mitigation plan when it has failed to adequately analyze the impacts of its activities on Indian lands and water rights. This analytical flaw places the sufficiency of this mitigation plan in serious doubt.

The Big Pine Tribe would like to suggest the County and City work with the Tribe to develop a project that mitigates the damage done to the Big Pine Reservation that resulted from the flooding of Big Pine Creek in 1982.

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#### **E. Chapter 9. Water Resources**

1. At page 9-58 the number of LADWP wells is listed and described. LADWP states there are 15 domestic wells located on various LADWP leases and these wells pump a minimal amount of water annually and are unmeasured. The Big Pine Tribe has 2 domestic wells and it is the Tribe's understanding that other reservations also have domestic wells. Are these wells included in the LADWP figures? If not, this should be explained.

The Tribe also questions the author's self-serving statement that these wells have an insignificant impact. It would seem the cumulative impact of 15 unmeasured wells pumping groundwater may have a significant impact, depending on the location of the wells.

2. At page 9-64, it is claimed that between 1982 and 1986 the groundwater table recovered to pre-1970 conditions in most areas of the Valley, with certain exceptions such as the Fish Springs and Blackrock Springs areas. It was previously stated at page S-11 that during this period the vegetation recovered to its greatest vigor since 1970.

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These statements are the basis for the establishment of a reference period for vegetation monitoring. The Tribe would note that these conditions are not comparable to the conditions prior to pumping or even prior to 1970 (see, pages S-21, 22). Therefore the EIR has not accurately described the pre-project conditions of the Valley's vegetation.

3. At page 9-77 it is stated that an impact of increased fluctuations and extended drawdown of the groundwater table (as experienced since commencement of increased pumping since 1970) is decreased evapotranspiration (ET) from vegetation. On page 9-78 one of the expectations of the long-term agreement is that

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ET would not change from the 1970-1990 period. The Tribe notes that this result maintains a condition which is inferior to the pre-project or re-pumping conditions. The decreased ET after pumping is indicative of a decreased level of vegetation. This is contrary to and contradicts the goal of the agreement that

significant decreases in vegetation from the pre-project period are to be avoided.

4. At pages 9-77-78, the mitigation of increased fluctuation of groundwater levels and the extensive drawdown of groundwater is discussed. Noticeably absent is any discussion concerning the effect groundwater pumping has had on the Tribe's off-reservation water rights and the domestic wells located on the reservation. The cumulative effects on these water rights must be analyzed, monitored and mitigated.

5. At page 9-78, it is implied that the agreement will be used to "manage groundwater pumping to avoid causing significant impacts on private (now Los Angeles-owned) wells, and to mitigate any significant impacts" and that this agreement goal will mitigate damage to Indian lands and water rights. Once again it must be mentioned that the County and City do not have the authority to unilaterally determine what can be considered significant changes or impacts on reservation lands and Indian water rights. This must be specifically stated and discussed in the EIR.

#### **F. Chapter 10. Vegetation**

1. The Tribe questions whether the Owens Valley tribes' lands, including the Benton Reservation, were part of the LADWP vegetation study conducted from 1984 through 1987. The Tribe also questions whether the lands traded to LADWP in the 1939 Land Exchange were included in the study. The Tribe requests an answer to these questions. If these lands were inventoried, the Tribe requests the inventories be made available for study by the



↑  
Tribe's botanist.

The Tribe has had a preliminary vegetation study conducted which reveals the current state of vegetation on the Big Pine Reservation is very grim. Only a fraction of the land is irrigated and there is not a functioning mechanism in place for the delivery of irrigation water to a majority of the parcels. Even on homesites the land around the dwellings is frequently barren of even grass. On unoccupied and unirrigated land the vegetation cover is very sparse. A field survey of the Reservation revealed that the majority of such sites support meager populations of rabbitbrush, occasional individuals of Nevada saltbrush and fourwing saltbush, with ample representation of Russian thistle and basia. Vacant lots in the southern extension of the Reservation have many dead shrubs, mostly rabbitbrush and big sagebrush. Live cover seldom, if ever, exceeds about 5%. Where trees are present, they are mostly elms and black locust. On the western portion of the Reservation most of the trees are dead. This vegetation is characteristic of abandoned agricultural land with a water table that has fallen precipitously. The effects of the 1982 flood are also much in evidence. The removal of topsoil may have contributed to the lack of revegetation on the abandoned croplands and on the flood site.

A comparison of aerial photos from 1968 and 1990 reveals substantial changes in the vegetation of the Reservation, mostly involving the number of trees and the amount of irrigated land. In 1968 trees were in evidence at the north ends of Block 16, 17, 14, 15, 10, 11, and 12, and south ends of Blocks 6 and 7. Cur-

rently a few live elm trees are left at Blocks 7, 16 and 17; Blocks 12 and 15 have more dense stands of elms as well. The ones present in 1968 appear to be gone from Block 6, 10, and 11. The little stand of locust in Block 18 is mostly dead. As regards irrigated land, the photos reveal approximately 216 irrigated parcels in 1968 (108 acres, if the average parcel size is 1/2 acre). In 1990, irrigated land has declined to 62 parcels, or 31 acres. This decline is attributed by the residents to the delivery system which is in poor repair, and to the 1982 flood which removed topsoil from a little more than half the Reservation. In addition, areas of the Reservation that are now mostly bare ground (Blocks 16-21) appear to have been grassland in 1968.

The EIR in its present form fails to address the vegetation of the Reservation and fails to analyze the impacts LADWP water gathering activities may have had on the Reservation. It should also be recognized that neither LADWP nor Inyo County has ever discussed the need for mitigation with the Big Pine Tribal Council.

2. At page 10-25, ¶4 describes Type A vegetation as that having an ET equal or less than the average annual precipitation. It is stated these vegetation communities should not be affected by groundwater pumping since they survive entirely on available precipitation. The Tribe questions the accuracy of this description because it is not strictly true that vegetation having ET equal to or less than average annual precipitation is not dependent on groundwater conditions. Only a portion of the precipitation that occurs in the area is available for use of ET by the

plants. For instance, high intensity thunderstorms during the summer result in high runoff, contributing little water for plant use. Depending on the root depth of the plants and depth to the water table, groundwater may be used by the vegetation. The Tribe requests the Type A vegetation definition be reviewed and further revised.

46 3. The Tribe requests a more in-depth analysis be provided in the EIR concerning justification for the use of the 1984-87 vegetation study to describe the condition of the vegetation of the Owens Valley pre-1970 (pp. 10-33, 10-47). The Tribe would again point out that the use of a 1984-87 vegetation study as a baseline indicator directly conflicts with the LADWP's obligation to the Tribe to maintain the reservation as prime agricultural land.

47 4. It is recognized at page 10-69 that "decreases and changes in Owens Valley vegetation have occurred since operations to supply the second aqueduct commenced". However the next statement, "the Agreement itself serves as a Valley-wide mitigation measure", is misleading and inaccurate. The agreement does not mitigate the decrease and changes in vegetation on the various Owens Valley Indian reservations since neither the City nor the County has jurisdiction to do so. This section should be redrafted to state Indian lands are not covered by the agreement, so the agreement itself cannot be considered a Valley-wide mitigation measure.

48 5. At page 10-70, it is stated the LADWP and Inyo County have developed a policy that will govern future groundwater pump-

ing. Once again, this policy was adopted without consultation with the Owens Valley tribes, and the Big Pine Tribe will not be bound by this policy in exercising its rights to pump groundwater on and off the reservation. This policy must be redrafted to specifically exclude the Big Pine Tribe and all the other Owens Valley tribes concerning their right to extract groundwater.

6. Pages 10-71 - 10-74 discuss the impacts of the long-term groundwater management agreement post-1990. This section demonstrates the lack of involvement by the Owens Valley tribes (Big Pine Tribe) and the federal government in developing policies to manage the groundwater in Owens Valley:

Representatives of LADWP and Inyo County Water Department will play key roles in the implementation of the groundwater management plan. The Inyo County/Los Angeles Standing Committee and the Inyo/Los Angeles Technical Group will continue to represent the parties in implementing the goals and procedures of the Agreement.

Once again this section of the EIR is based on the misguided assumption that Big Pine and the other Owens Valley tribes have no water rights in the Valley. As previously stated, this assumption is wrong (see, Section B., ¶1. herein). This section must be amended to state the Big Pine Tribe's water rights on and off the reservation are not subject to or affected by the agreement. It should also be noted specifically that the tribes are not bound by, nor do they recognize, the use of vegetation as a baseline indicator of reasonable groundwater pumping by LADWP.

The Tribe urges the County and City to consider contacting the Owens Valley tribes and the federal government to discuss

their participation as parties in the groundwater management plan. It does not appear that the present plan is workable without the tribes' cooperation in light of the tribes' water rights off-reservation, which include groundwater.

7. A review of the "EIR Authors and Persons Consulted" section of the EIR shows that the Army Corps of Engineers have not been contacted or consulted concerning the effect the proposed project and agreement may have on any wetlands located within the proposed project area. A permit commonly referred to as a "Section 404 permit" must be acquired by the Corps of Engineers when a project impacts a wetland area. There appear to be wetlands within the project area, yet there is no indication that LADWP has complied with the Federal Clean Water Act by contacting the Corps of Engineers and obtaining the required permit. The Tribe requests this issue be addressed in the EIR.

#### **G. Chapter 13. Energy**

At page 13-5, the EIR states, "In the future, the export of Owens Valley water will be governed by the terms of the Agreement". This statement is simply inaccurate. The Big Pine Tribe is not subject to the terms of the agreement and neither Inyo County nor the City of Los Angeles has the authority to regulate the export of water owned by the Big Pine Tribe. This sentence should therefore be amended to specifically exclude the export of water owned by Owens Valley tribes.

#### **H. Chapter 14. Land Use and Economic Development**

1. It is recognized by the authors of the EIR at page 14-6 that, ". . . because of Los Angeles' land ownership, it exports

not only water from the Valley, but also restricts development in the Valley, thereby effectively 'importing' economic development constraints". In the absence of Los Angeles' prevalence in land ownership, such constraints would not exist."

In discussing the effects these economic constraints have had on residents of the Valley and Inyo County, the EIR completely ignores the effects on the Owens Valley tribes, including Big Pine. The various policies and practices of the LADWP that have inhibited economic growth on the reservations is not discussed in the pre-project setting section of this chapter, and it is equally clear that the mitigation of the impacts of these policies on the tribes has not been addressed in this EIR or the long-term groundwater management agreement.

The Big Pine Tribe suggests the authors of this EIR contact the various tribes and tribal entities and include in this chapter a discussion of the economic development problems experienced by the tribes resulting from the water gathering activities of LADWP. It is further suggested that if the County and LADWP decide to seek participation from the tribes in developing a more workable and comprehensive long-term groundwater management agreement, the land needs of the Tribe/tribes should be addressed in that amended agreement.

#### **I. Chapter 15. Cultural and Historical Resources**

As was discussed at pages 2-7 and 15-1 of the Draft EIR, the Paiute/Shoshone of the Owens Valley region engaged in irrigation to enhance the productivity of various plant species used for food. Although some of the major food plants were not dependent

upon irrigation for their survival, they certainly required a wet or moist soil in which to grow. In addition to the estimated 7000 acres irrigated by the Indians, there were many more thousands of acres of wetlands that provided habitat for plant species of traditional importance to the Paiute and Shoshones. Prior to 1970, much of the area between the Owens River and the alluvial fans of the Sierra in the Thibault-Sawmill region were wetlands. The Independence Springfield was an extensive wetland area. Inflow to the Owens River below the aqueduct intake caused by springs, flowing wells, irrigation tailwater, and a generally higher water table provided wetland habitat in the delta region.

A survey of 51 plant species identified as important for sources for the Paiute/Shoshone of the Owens Valley in Steward (1938) and Lawton, et al. (1976) reveals that 23 of the species (45%) are restricted to wet habitats (Muniz, 1973). Such habitats are described as "moist places or meadows", "wet or damp places", "damp cultivated ground", "springy places", "moist banks", "wet lowlands", or "dampish places". Of the 15 species identified by these sources as used for medicinal purposes, 4 of them (27%) are restricted to similar habitats. Only 4 fiber plants were listed by the above sources, but one of them - the tule - also requires wetlands.

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The EIR fails to adequately inventory these wet places and therefore cannot fully disclose or mitigate the loss of wet places and plant species that constitute cultural resources for the Native Americans in the Valley. Failure to include this analysis renders the EIR inadequate.

1. At page 15-5, the authors describe the tribes in the Owens Valley as the Owens Valley Paiute-Shoshone Band of Indians. This is inaccurate and simply shows that the authors failed to contact the various tribes in the Valley to discuss their concerns and history. The tribes in the Owens Valley are five separate and distinct, federally recognized tribes. It is suggested that each tribe be contacted directly to discuss its history and obtain its actual name.

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2. At page 15-6, the authors state:

Between 1970 and 1990, no impacts to cultural of historical resources occurred as a result of water management practices.

But in Chapter 16, page 16-12, it is stated that:

Spreading of excess surface water has occurred intermittently since the 1930's and . . . evidence of flood is apparent . . . . It is possible that in the 16 years since the site (CA-INY-1716) was recorded, surface water spreading and natural erosion in the area have exposed additional artifacts.

This apparent contradiction must be explained and, since impacts to cultural resources have admittedly occurred, the scope of these impacts must be considered.

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3. Page 15-7 states:

The project area was examined from February 5-8, 1990. . . . In addition, all of the proposed spreading ground locations were visited and examined. Chapter 16, Ancillary Facilities, contains a detailed description of the field evaluation.  
[Emphasis added.]

However, the detailed description of the field evaluation at page 16-12 demonstrates that, "no attempt was made to survey the entire preliminary recharge site basin", and that, "the northern



portion of the proposed ground was not examined on foot".

The Tribe requests an explanation of these contradictory and internally inconsistent statements. Also, the described archaeological survey technique does not reflect the proper procedure for a final cultural resources evaluation for a project of this magnitude. Complete coverage (every acre by foot) of all proposed project areas must be done for the most accurate evaluation of the cultural resource potential. Survey by automobile is not acceptable.

4. At page 15-7 it is stated that, "The project area was examined from February 5-8 in 1990".

This statement contradicts the information provided to Jan Shannon, Tribal Anthropologist, on January 25, 1991 by David Babb of LADWP. Mr. Babb stated the archaeologist only spent two days in the field examining the project area. The Tribe requests an explanation concerning this discrepancy.

5. The report prepared by LADWP describing the methods and findings of the archaeological reconnaissance was not available for examination by the Tribe. The Tribe renews its request for a copy of this report and will provide further comment upon review of this report.

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#### **J. Chapter 16. Ancillary Facilities**

1. Figure 16-1 and page 16-2 shows the use of spreader dikes for facilitating recharge into the aquifer. These dikes appear to be the primary recharge method near Big Pine. Unfortunately, the EIR fails to adequately analyze the effectiveness of surface application of water to recharge the aquifer. This

analysis must be included due to the integral use of recharge to enhance aquifer recovery after groundwater depletion during dry periods and pumping.

In addition, the effect this practice may have on vegetation must be more carefully analyzed and fully discussed. If water is spread on the same area often enough, and if it remains on the surface long enough, it will kill shrubs and grasses not adapted to inundation (the roots suffocate). Intermittent water spreading will not allow for the development of a wetland vegetation either, and the result will be no vegetation at all except for may be saltcedar. The McNally Pond area near Laws shows this effect. Water is spread there in the fall only for waterfowl habitat, and was not spread at all this year due to drought. The area has very sparse and depauperate vegetation.

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Page 16-4, ¶ Big Pine, states that, "Construction of the four new ditches will result in minor vegetation removal and disturbances". There is no discussion on this page or on pages 16-12/16-13, Cultural Resources Impacts, of the effect of this surface and subsurface disturbance on known or potential cultural resources. There is only one mention on page 16-12:

Construction of proposed recharge projects  
could disturb subsurface archaeological  
resources, with possible significant impact.

The potential impact on cultural resources should be discussed for all proposed surface and subsurface disturbance.

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The proposed mitigation for the spreading areas near Big Pine and Laws is not acceptable as outlined on page 16-14. It was noted previously (page 16-12) that accelerated erosion caused

by surface spreading in the last 16 years has impacted one site (CA Iny 1716). The potential clearly exists to impact other sites, including those sites not yet found. Therefore, a complete archaeological reconnaissance must be conducted throughout the entire project area, the entire spreading area, not just the locations of the proposed facilities, and all of the sites evaluated for significance.

2. There appears to be no proposed mitigation for the known sites in the spreading areas. Mitigation should be proposed according to California Public Resources Code §21083.2, which states that the lead agency must determine whether an archaeological site is "unique" or "nonunique". Should a site be determined "unique", ". . . the environmental impact report shall address the issue of those resources". It is not apparent that a determination of uniqueness has been made in the environmental impact report, and there is no discussion of the proposed handling of the "unique" cultural resources. Furthermore, an evaluation cannot yet be made as a complete survey of the area has not been done to locate the known sites. The foregoing requirements are in addition to those otherwise imposed by state or federal law.

Of particular interest, which has not been mentioned in this EIR, are the mitigation requirements discussed in the County of Inyo Ordinance No. 245. This Ordinance, at Section IV, states:

No plan shall be sufficient and no plan shall be approved by the Commission (County of Inyo Planning Commission) unless the plan, in addition to proposed preservation, protection, or relocation measures, shall propose reasonable alternatives to the proposed project or action

that do not require significant disturbance of the features or sites.

According to this Ordinance, the mitigation proposed in this EIR is not sufficient.

In addition, County of Inyo Ordinance No. 245, Section V, states:

If in the course of a project or action commenced . . . an archaeologist, paleontologist, or historical or a Native California Indian burial site is discovered, the person responsible for the project shall notify the County of Inyo Planning Commission of the existence of the feature or site, and . . . if any damage to the feature or site is contemplated allow the Commission a reasonable time . . . to relocate the feature.

The EIR fails to even discuss the requirements of the County Ordinance and proposes no plan of mitigation.

3. It should also be recognized there appears to be no prospective mitigation proposed with respect to the known and potential archaeological sites. Such mitigation is required by Public Resources Code §21083.2. The only mitigation proposed is ad hoc mitigation for sites accidentally discovered during construction, pursuant to 36 C.F.R. 800.11. Detailed, prospective mitigation is required in addition to ad hoc mitigation for accidental discovery. The actions described at page 7-20, Archaeology, must be undertaken.

4. The map on page 16-26 states the Manzanar Airport is 35 miles from Independence and 77 miles from Lone Pine. These distances are not accurate and should be corrected.

5. The discussion in the EIR concerning the construction and operation of an additional 15 new wells to increase LADWP's

operational flexibility and facilitate rotational pumping completely ignores the effect these wells may have on the water rights owned by the Big Pine Tribe and the other Owens Valley tribes. In particular, the Big Pine Tribe is concerned about the impact on its domestic wells and the increased pumping costs that might be incurred as the groundwater table is lowered under the reservation. Once again the author of the EIR fail to include any mitigation analysis of the impacts that may occur on the water rights held by the tribes as a result of the construction and operation of these wells.

The EIR also fails to point out the Big Pine Tribe is not a party to the long-term groundwater management agreement and is, therefore, not subject to the mitigation process in terms of determining what is significant change or impact to vegetation. The tribes suggest additional language specifically stating the agreement is not binding on the tribes and the federal government, and mitigation to tribally-owned lands will not occur pursuant to the procedures outlined in the agreement.

63 6. In pages 16-37 through 16-40, no discussion was made concerning the more subtle impacts on cultural resources from the groundwater pumping wells. For example, groundwater pumping has caused the loss of vegetation in locations outside of the wells themselves. Without the vegetative cover acres of land are exposed to wind erosion. This type of erosion has an adverse effect on archaeological sites in that artifacts are exposed and are able to be transported away from the sites, which ruins the context of these artifacts. Wind erosion also causes the

stratigraphy of archaeological sites to collapse. This element of groundwater pumping must be addressed.

7. At page 16-37 it is stated:

Construction of two new wells in the Law area would have no significant adverse impacts on subsurface archaeological resources.

And,

Construction of the five new wells in the Bishop area would have no significant adverse impacts on subsurface archaeological resources.

These statements cannot be valid unless some subsurface testing was done to determine that no cultural resources were present. The only examination described in this report is surface survey. The Tribe requests an explanation for the failure of the archaeologist to conduct subsurface testing.

Pages 16-25 and 16-27 describe the location of the proposed well ISB-4. Pages 16-28 and 16-30 describe the location of the new well in Lone Pine, LP1. According to the physical descriptions and the maps in the EIR, and upon examination in the field, it appears that these proposed well sites are on land managed by the Bureau of Land Management. If these wells are in fact located on federal land, then federal laws govern this land and mitigation should be proposed according to these laws. The NEPA, or the National Environmental Quality Improvement Act of 1970 (40 C.F.R. Parts 1500-1508), the Archaeological Resources Protection Act of 1979 (Title 16 U.S.C. §470), and 36 C.F.R. Part 296 should be implemented in the proposed mitigation for cultural resources located on these well sites. 40 C.F.R. Part 1505 states:

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State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.

Title 16 U.S.C. §470ee(a) states:

No person may excavate, remove, damage or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit issued under section 470cc of this title.

36 C.F.R Part 296.4(a),

No person may excavate, remove, damage or otherwise alter, deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit issued under Part 296.8 or exempted by 296.5(b) of this Part.

The EIR fails to mention the construction of access roads to the proposed well sites which in some cases will be needed for the well construction (wells ISB-1, ISB-5, BP-1, L-1 and L-2 specifically). Therefore, there is no discussion of the impacts of these roads on cultural resources, or the mitigation for known and potential cultural resources. These issues must be addressed.

Upon field checking the locations of the proposed wells, it is apparent that one well site, BP-1, is clearly occupied by a prehistoric site with bedrock mortars, milling slicks, grinding stones, ceramics and obsidian flakes. This area must be further analyzed pursuant to the statutes previously cited.

#### K. Chapter 17. CEQA Considerations

1. The Big Pine Tribe disagrees with the statements in the

EIR that the cumulative effects of the City's water management practices are beyond the scope of this report. As noted at page 17-4, "CEQA guidelines call for evaluating the cumulative impacts of projects past, present, and anticipated, relevant to the proposed project".

The Tribe believes the increase in dust generated by the proposed project, e.g., the clearing of land for increased spreading and recharge areas, coupled with the dust generated by the drying up of Owens Lake is a cumulative impact that must be addressed in the present EIR. The fact that separate entities may be studying the dust problem (or have distinct obligations with respect to air pollution) cannot be used as a rationale for omitting a comprehensive study concerning dust impacts.

#### **L. Comments Concerning the Green Book**

1. The soil-to-plant water balance projections described in the Green Book on pages 9 and 10 for the October 1 projection include 50% of the precipitation to be added to the plant-available soil moisture. This amount becomes 30% of precipitation if the runoff for the current and previous years is less than 75% of average, and 40% of the precipitation if runoff is less than 70% of average.

The Tribe notes there does not appear to be a pattern to these adjustments to the amount of precipitation. An explanation concerning the justification for these presented trends is requested. It is also suggested it be stated more clearly in the "pump turn off provisions section" that if the projected available water is less than the necessary water requirement, the



pumps will be turned off.

2. On page 12 it is stated that if no significant change in vegetation has occurred and a well has been turned off because of a projected deficit, the well may be turned on to supply water to the monitoring site. It is also stated that if a decrease in vegetation has occurred, the well may be turned on to mitigate the impacts.

It is unclear to the Tribe why water would be supplied to the monitoring site from a well to which it is linked. Although this would increase the water supply to the vegetation within the monitoring site, it would ignore the surrounding area for which the monitoring site is an indicator. In addition, the pumping of additional groundwater will only exacerbate the original cause of the impacts. Due to inefficiencies in the process of application of the water, some of the applied water will not return to the groundwater or be used by the vegetation. Page 9-74 of the EIR identifies one example of the operation of enhancement/mitigation wells in the Big Pine area contributing to an adverse impact due to a lowered groundwater level. Measures should be outlined to alleviate the depleted groundwater table, and regular operation of the well should not be permitted until the cause of the impacts has been corrected.

On page 16 of the Green Book, a similar mitigation plan is recommended for relieving projected stress on Type D vegetation. The above comments are equally applicable to this plan.

3. Page 98 of the Green Book describes the method used to determine areas with the greatest potential for experiencing ad-

verse vegetation effects due to groundwater pumping. This is defined as the "worst case" pumping scenario described above resulting in a predicted drawdown of 10 feet or greater. The 10-foot drawdown criterion is based on the range of root depths for two general types of vegetation typical for the area. However, depending on the level of groundwater prior to pumping and the actual type of vegetation present at any site, a drawdown of significantly less than 10 feet could result in damage to vegetation. The Tribe suggests monitoring efforts should be much more extensive than those defined within the 10-foot drawdown area. In addition, the accuracy of the model used for the drawdown prediction should be taken in to consideration when designating certain areas as potentially affected by groundwater pumping.

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#### CONCLUSION

The proposed EIR and the Long Term Groundwater Management Agreement do not discuss the impacts on the Owens Valley Tribes. By failing to discuss these impacts, LADWP has attempted to avoid mitigating the effects of its water gathering activities on Indian lands and water rights.

Contrary to the implications in the EIR, these impacts are significant and must be mitigated. This mitigation must include at a minimum consultation with the tribes, development of monitoring and other mitigation plans paid for by LADWP, reimbursement to the tribes for the limiting of their economic development and a release of land adjacent to the reservations for "orderly development". Without the inclusion of the impacts

on Indian lands and water rights and the development of an acceptable mitigation plan, the Tribe strongly believes the proposed EIR is inadequate and does not comply with the requirements of CEQA.



## DECLARATION OF JENNIFER DUNCAN

STATE OF CALIFORNIA )  
 ) ss  
COUNTY OF INYO )

I, JENNIFER DUNCAN, declare:

1. I am a resident of the county and state noted above.

2. I had a telephone conversation with Sally Manning,  
Vegetation Specialist, Inyo County Water Department  
("Department"), on Thursday, January 24, 1991, at about 1:50 P.M.

3. I asked for a copy of the 1984-87 Vegetative Study referred to in the draft EIR and Green Book.

4. Ms. Manning responded to my request with some hesitation, stating [the Department] has the maps which area in the Stipulation and Order and part of the Agreement; has guides to the maps and "hard copy data".

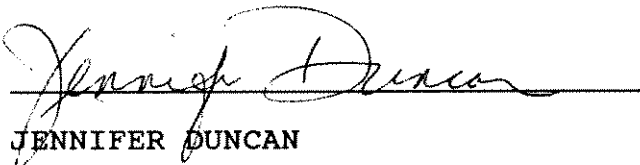
5. I participated in a discussion with Ms. Manning in order to understand what is meant by "hard copy data".

6. Ms. Manning basically stated the Department did not have copies of Los Angeles Department of Water and Power's (LADWP) field notes which give the specific details regarding the vegetative inventory; LADWP went to certain parcels, ran transects, brought in sheets and tallied up for average vegetation coverage of each species.

7. Per Ms. Manning, LADWP inventory results were then entered into the Department's computer; the computer print-out fills a 3-ring binder. This information is a parcel-by-parcel summary of the vegetation inventoried between 1984-87.

8. Ms. Manning indicated that to copy this study would be a horrendous task, however California Indian Legal Services is welcome to come over and look at it. Ms. Manning then stated if CILS wanted a copy of this study she could call LADWP and ask them to print it out.

I declare under penalty of perjury that the foregoing is true and correct and that this Declaration was executed this 24th day of January, 1991 at Bishop, California.

  
JENNIFER DUNCAN

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## **RESPONSES TO COMMENTS LETTER B13**

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### **RESPONSE B13-1 THROUGH RESPONSE B13-3**

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 B13-4**

Please refer to response to master comment PD-8 regarding the relationship of Indian tribes to the Agreement.

### **RESPONSE B13-5**

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

### **RESPONSE B13-6**

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

### **RESPONSE B13-7**

Please see response B13-6.

### **RESPONSE B13-8**

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-9

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-10

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

RESPONSE B13-11

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-12

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-13

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-14

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-15

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-16

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.



RESPONSE B13-17

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-18

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-19

The assumption in this comment is noted but is incorrect. See response to master comment PD-11 for discussion of Inyo County's financial participation in the Agreement; also see Section XIV of the Agreement (pages B-40 through B-50).

RESPONSE B13-20

In the Agreement, Los Angeles agrees to offer for sale, either at public auction or to the County for public purposes, 75 acres (see Section XV, pages B-50 through B-53). Therefore, these lands would be released to the public as well as Inyo County. Please refer to response to master comment PD-15 for discussion of release of Los Angeles-owned lands.

RESPONSE B13-21

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-22

Please refer to response to master comment S-1 for discussion of base year determination. Also, see response B13-6 regarding the availability of the vegetation study.

RESPONSE B13-23

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-24

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-25

Comment noted; however, Los Angeles land ownership has not constrained development of tribal lands.

RESPONSE B13-26

Comment noted. No further response is required.

RESPONSE B13-27

The assumption of this comment is noted but is incorrect. Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-28

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-29

Please refer to response to master comment PD-8 regarding the relationship of Indian tribes to the Agreement.

RESPONSE B13-30

The citation in this comment of the worst-case condition assumed in the model is accurate; however, the assertion that the model's worst-case condition has occurred during the fourth year of the current drought is incorrect. Because actual runoff and precipitation were greater and pumping was less in each year of the current drought than the assumed worst-case condition, it is believed that the worst-case scenario used in the model is still valid.

RESPONSE B13-31

The 1984-1987 inventory serves as the vegetation baseline for purposes of management under the Agreement. 1970 generally serves as the baseline of the pre-project conditions for the project under CEQA. For a discussion of impacts under CEQA see Chapter 10, Vegetation, of the Draft EIR. The impact to Fish Springs is described in Impacts 9-13 and 10-14 in the Draft EIR. Also see response A4-76 in Letter A4, and Appendix A-1 regarding spring impacts.

RESPONSE B13-32

Please refer to responses to master comments EA-1 and VE-5 for a discussion of pre-project conditions. Also see Appendix A-1 regarding springs and responses to master comments PD-5, VE-6, WA-4 and AF-2.

RESPONSE B13-33

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-34

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

RESPONSE B13-35

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

RESPONSE B13-36

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-10, for a discussion of application of CEQA to Indian Lands.

RESPONSE B13-37

See response to master comment MT-1 for discussion of public review of E/M projects; concerning blowing dust, see response to master comment AQ-1; regarding impacts to Indian lands and water rights, see PD-9. The suggested mitigation due to flooding of Big Pine Creek in 1982 is noted, but is not related to the project.

RESPONSE B13-38

The Big Pine Tribe wells are not included in Table 9-10. Comment noted on pumping of unmeasured wells.

RESPONSE B13-39

1984-1987 serves as the vegetation base for management under the Agreement. Please refer to response to master comment EA-1 regarding pre-project conditions.

RESPONSE B13-40 THROUGH RESPONSE B13-42

A primary goal of the Agreement is to manage groundwater and surface water to avoid causing significant vegetation decreases and changes from conditions documented during the 1984-1987 vegetation inventory -- not to avoid such decreases and changes from pre-1970 conditions. However, significant adverse impacts of the project since 1970 are identified and mitigation is described in the Draft EIR.

RESPONSE B13-43

The 1984-1987 vegetation inventory did not include Indian lands; see response to master comment PD-9. Depending on location, some of the exchange lands may have been inventoried. Regarding the availability of the inventory, see response to B13-6.

RESPONSE B13-44

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-45

Comment noted. Under Section XXV of the Agreement (page B-58, line 19) and Section V, Further Studies, of the Green Book (page 117), the vegetation classification and maps may be revised as needed. Also please see response A4-81 in Letter A-4.

RESPONSE B13-46

The statement that the 1984-1987 vegetation inventory is used to describe pre-1970 conditions is incorrect. Please see responses B13-31 and B13-40.

RESPONSE B13-47

Please refer to responses to master comments PD-8, regarding the relationship of Indian tribes to the Agreement, and PD-9, regarding Indian lands and water rights.

RESPONSE B13-48

Please refer to response to master comment PD-8 regarding the relationship of Indian tribes to the Agreement.

RESPONSE B13-49

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 B13-50

Comment noted. Please refer to response to master comment PD-8 regarding the relationship of Indian tribes to the Agreement.

RESPONSE B13-51

No actions in the proposed project involve placement of dredged or fill materials in waters of the United States or associated wetlands. See response to A4-80 in Letter A4.

RESPONSE B13-52

This comment is correct. Page 13-5 second paragraph, first sentence, is revised to read: "In the future, the export of LADWP water will be governed by the terms of the Agreement."

RESPONSE B13-53

The issue of economic development on tribal land is addressed. See response B13-25 above.

RESPONSE B13-54A

Plant species identified in this comment are noted; however, no specific locations of these species are provided in the comment relative to inventory and management data contained in the Draft EIR. Please refer to response to master comment EA-1 regarding pre-project conditions.

RESPONSE B13-54B

Comment noted. The EIR authors regret any error in descriptions of the names of Indian tribes.

RESPONSE B13-55

No contradiction exists between the text cited from the Draft EIR on pages 15-6 and 16-12. The statement of no impacts on page 15-6 is accurate in that no cultural resources were uncovered as a result of LADWP operations, such as drilling of wells or spreading operations during the period of 1970 to 1990. The text on page 16-12 relates to Impact 16-5, which states that construction of proposed recharge project could disturb subsurface archaeology resources with possible significant impacts. The potential for impacts is further illustrated by the text cited on page 16-12, which indicates the possibility that some resources exist in the vicinity of Site CA-INY-1716. In view of this information, appropriate mitigation measures (16-5(a) and 16-5(b)) were developed.

RESPONSE B13-56

On page 15-7, paragraph 1, second sentence, the word "general" should be inserted before "locations", reflecting the fact that the locations considered for the new recharge facilities proposed under the Agreement are not precisely defined. Please refer to response to master comment CL-1 for a detailed discussion of the survey methodology used by the archaeologist. The statement

of February 5-8, 1990 is correct. The report from the archaeologist is available for review at LADWP offices; however, any maps or other description of cultural resource sites should be obtained from the Archaeological Information Center at U.C. Riverside. The Big Pine Tribe has been referred to this source.

RESPONSE B13-57

As noted in Chapter 10, Vegetation, page 10-66, paragraph 1, sentence 3, it is acknowledged that surface water spreading could result in vegetation decrease or change. This impact is also addressed in Chapter 16, Ancillary Facilities, page 16-9, Impact 16-1 of the Draft EIR. If it is determined that significant impacts have occurred, they would be mitigated in accordance with the Agreement and Green Book as shown in Mitigation Measure 16-1.

RESPONSE B13-58

The comment is noted. All elements of proposed new recharge facilities, including four new ditches in the Big Pine spreading area, are included in the CEQA review in this EIR, and Mitigation Measures 16-5(a) and 16-5(b) in Chapter 16, Ancillary Facilities, of the Draft EIR would be implemented if any significant impacts occur. As stated in the Draft EIR, these facilities were compared against known sites. No impacts are anticipated.

RESPONSE B13-59

The mitigation measures 16-5(a) and 16-5(b) on page 16-14 are consistent with applicable laws. All applicable laws, ordinances and regulations will be complied with prior to commencement of this element of the project.

RESPONSE B13-60

The statement in the Draft EIR, in Chapter 16, page 16-12, regarding location of Site CA-INY-1716 is in error. Sites CA-INY-1716 and CA-INY-1719 are adjacent to, but not within, the Big Pine spreading area. The EIR authors regret this error. This correction is included in Chapter 3, Revisions to the Agreement and Draft EIR. As stated in Mitigation Measures 16-5(a) and 16-5(b), should previously unrecorded sites be discovered, they would be mitigated in accordance with applicable laws.

RESPONSE B13-61

Comment noted. Figure 16-9B is corrected to reflect 3.5 miles to Independence, and 7.7 miles to Lone Pine. This correction is shown in Chapter 3 of this Final EIR, Revisions to the Agreement and Draft EIR.

RESPONSE B13-62

Please refer to response to master comment PD-9 regarding Indian lands and water rights.

RESPONSE B13-63

This comment addresses future effects under the Agreement. The primary goal of the Agreement is to avoid vegetation decrease and change, and thus indirectly minimize the potential for wind erosion.

RESPONSE B13-64

Comment noted. Wells ISB-4 and LP-1 are not located on federal land, and no wells are proposed for federal land. Significant effects, if any, of construction of access roads would be mitigated as described in Chapter 16, Ancillary Facilities, page 16-14, mitigations 16-5(a) and 16-5(b); and page 16-40, mitigations 16-16(a) and 16-16(b) of the Draft EIR.

RESPONSE B13-65

The exact location of the alleged prehistoric cultural site referenced in this comment is not provided, making the evaluation of this comment difficult. In Chapter 16, Ancillary Facilities, page 16-38, the survey coverage of well BP-1 (10 acres, shown in Table 16-3) and results are shown. No evidence of prehistoric cultural resources was discovered. A previously unknown cultural site was found (WS-2) and was determined to be insignificant.

RESPONSE B13-66

Please refer to responses to master comments PD-3 and AQ-1 regarding Owens Lake and cumulative air quality impacts.



RESPONSE B13-67

Comment noted. The Green Book procedures were developed by the Technical Group based on the best available information at the time. These procedures can be refined as needed as additional information is collected, analyzed and evaluated. Regarding pump turn off, the Agreement, Section V.B (page B-25, lines 11-16), clearly states the provisions for well turn off. Concerning well turn on, see response to master comment PD-6. Regarding a depleted groundwater table, see responses to master comments PD-4 and PD-17. Regarding monitoring, evaluation of the Green Book procedures will be refined on an ongoing basis. For example, the monitoring program was greatly expanded for 1991-92, both within and outside the 10-foot drawdown zone.

RESPONSE B13-68

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.



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## ORGANIZATIONS AND INSTITUTIONS



**Letter C1**

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**League of Women Voters of the Eastern Sierra, Inc.**





league of women voters of the eastern sierra, inc. - box 1496 - bishop, california 93514

December 9, 1990

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

Dear Mr. Davis:

The League of Women Voters of the Eastern Sierra has the following comments, questions, and suggestions for the DEIR and Agreement:

- 1) The Groundwater Management Report issued by the County in 1981 listed about 25,000 acres of vegetation as damaged by pumping or surface water management changes. This DEIR (SCH #89080705) mitigates only about 2,500 acres, which it refers to as "all significant damage". The EIR should justify the insignificance of the remaining 90% of damaged areas by showing what is considered significant and why. Will "significant" be interpreted this same way under the Agreement? If not, the Agreement should have some more quantitative definition.
- 2) Since the calculation of soil moisture done on October 1 adds in a specified proportion of the average annual precipitation, the vegetation could actually lack sufficient water to get it through the next growing season in a drought year. We suggest an earlier evaluation of soil moisture and automatic well turn off after winters with less than average precipitation - perhaps June 1.
- 3) In order to recover to the 1984-1987 vegetation levels after the present drought, we suggest a drought policy that will maintain the soil moisture at the amount that would have been used by the vegetation as it was in 1984-1987 until there is full recovery of the vegetation to its 1984-1987 levels.
- 4) The EIR should allow for mitigation of areas damaged since 1970 that are discovered after this process has concluded. For example, if a new study of the pre-1970 aerial photos showed clearly that damage had occurred due to groundwater pumping or changes in surface water management, the damaged area shall be mitigated.
- 5) The EIR should be consistent in its definition of the Owens Valley. Maps in the EIR show the Owens Valley reaching into Mono County and Nevada, but references in the text are clearly to that part of the Owens River Basin contained in Inyo County.
- 6) The Agreement should specify that the wells exempt from the automatic turn offs should

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be used only for the purposes which made them exempt. Pumping should not be increased to exceed the levels required for those uses under any circumstances.

- 7) It is not completely clear if the well turn off procedure is subject to Dispute Resolution. On page B-25 after the description of well turn off on line 16, the sentence "This well turn off is not subject to dispute resolution" should be added. Otherwise, the list of procedures subject to dispute resolution on pages B-59 and B-60 might be interpreted to include well turn off.
- 8) On page B-33, lines 15-18, the County is bound to agree to reasonable ground water banking facilities. Why is this topic singled out? It is appropriate to subject this to dispute resolution like almost everything else.
- 9) On page 44 of the Green Book, Tamarisk Scrub (salt cedar) should not be listed as a Type D, or any type of vegetation to be protected, since actually the intent is to eradicate it. No other Type D vegetation should be allowed to go to salt cedar without that being considered a significant change.
- 10) While we recognize that some of the already damaged areas may have to be mitigated elsewhere (instead of on site), we would like the Agreement to insist that all future damage must be prevented or mitigated on site. The difficulty of on-site mitigation will be an incentive for the prevention of damage.
- 11) The Green Book and the EIR vegetation chapter and tables should use the scientific names of plants everywhere with a consistent common name in parentheses. There is no consistency at present.
- 12) The EIR should include an index and a glossary of abbreviations.
- 13) There appear to be no monitoring sites listed on the Bishop Cone.
- 14) The League of Women Voters supports all reasonable water conservation measures in Los Angeles and the Owens Valley.

*Virginia (Yan) Kinney*  
Virginia "Yan" Kinney  
President  
LWV of Eastern Sierra.





league of women voters of the eastern sierra, inc. - box 1496 - bishop, california 93514

## EIR ERRATA

### General

The maps in App. E3 of the EIR vol. II do not show all of the wells listed in the GB in Table 1.A on p. 6, and in the EIR vol. I in Table 9-10, p. 9-60. Note that wells and monitoring sites shown on the color maps appended to the Stipulation (EIR vol. II) are hard or impossible to find due to poor legibility in those reduced maps.

### Green Book

p. 46; 3rd paragraph refers to Table 1.C.2. Can't find it; must mean Table 1.A, p. 6.

p. 83; Figure III.G.4.a: The units for root density are not given; should be.

p. 144: Just below middle, in species list: *S. exigua* (not *S. exiqua*). Same error 7th line from bottom; and on page 145, on 2nd line from top and also 2nd line from bottom, and on p 146, middle, in species list.

### EIR Vol. I

p 5-7; 5th line under "Cessation...": footnote 6?

p. 6-32; last 2 sentences of 3rd paragraph should be joined.

p. 10-3, 10-4; is the median rainfall 4.3" as on the graph, or 3.3" as in the text?

p. 10-5; middle paragraph: specify the location where scientific names of plants are given.

p. 15-6; 3rd paragraph, 3rd line: should be north of Bishop Airport.

p. 15-7; 1st line: "Each of ...well locations ~~were~~ was surveyed..."

p. 16-9; 4th paragraph, 2nd line: "convey the water ~~form~~ from the culverts"

p. 16-11; 2nd paragraph, 3rd line: "if the wind ~~was~~ were blowing"

p. 16-36; 3rd paragraph, 2nd line: "if the wind ~~was~~ were blowing"

p. 16-37; Land Use & Cultural Resources should be larger type to conform to previous pages.

### EIR Vol. II

B-2: Table of Contents; page numbers are not correct; also, xy through xxx are not listed..

B-9: Line 2: least rather than lease.

B-18: missing page

B-30: line 7: and instead of an



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## RESPONSES TO COMMENTS

### LETTER C1

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#### RESPONSE C1-1

Please refer to response to master comment VE-3 for a discussion on the issue of acreage discrepancy. The criteria for identifying significant effects is described in the introductory statements of 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. Please refer to response to master comment PD-18 regarding the interpretation of "Significant" under the agreement.

#### RESPONSE C1-2

Decisions to turn wells on and off are subject to the provisions of the Green Book, Section I.B.2. Under this section, wells that are not required to be turned off automatically under the provisions may be turned off if the Technical Group determines that such action would assist in achieving the goals of the Agreement. This was implemented in runoff years 1990-91 and 1991-92, when wells were turned off that otherwise could be pumped. Provisions for updating the Green Book and refinement of procedures are provided in the Agreement, Section XXV (page B-58, line 19).

#### RESPONSE C1-3

The drought recovery policy is described in response to master comment PD-17.

#### RESPONSE C1-4

If in the future, it is determined that an area has been significantly affected since 1970, mitigative actions would be implemented under the Agreement.

RESPONSE C1-5

The study area for the EIR covers the Owens Valley portion of Inyo County. Please refer to master comment PD-3. The provisions of the Agreement apply to all of Inyo County.

RESPONSE C1-6

Comment noted. Except for wells which are exempt because their operation does not affect groundwater dependent vegetation, exempt wells will be used only for the purposes which made them exempt.

RESPONSE C1-7

As provided in Section V.B, page B-25 of the Agreement, the turn off of wells is not subject to dispute resolution. In Section XXVI, A.9 provides resolution of disputes as to whether wells should be turned on.

RESPONSE C1-8

The citation of the text in the Agreement is noted; however under Section XXVI. A.13, page B-60 of the Agreement, this matter is subject to dispute resolution. It should be noted that any new groundwater banking facilities not included in this EIR would be subject to CEQA review.

RESPONSE C1-9

Section IV.A, page B-19, line 10 states that a decrease of saltcedar vegetation in Type D classification will generally not be considered significant. Please refer to response to master comment VE-7 for additional discussion of saltcedar control.

RESPONSE C1-10

The Green Book contains rigorous site-specific monitoring and mitigation requirements designed to protect the environment. Also please see responses to master comments MT-3 and MT-8.

RESPONSE C1-11

A new appendix (B-4) has been prepared for this Final EIR that includes both scientific and common names for plants found in Owens Valley.

RESPONSE C1-12

A glossary of abbreviations has been prepared and is included as Appendix D of this Final EIR.

RESPONSE C1-13

It is stated in the Green Book (Table 1.A, pages 6 and 7) that monitoring sites will be established on the Bishop Cone. The Technical Group is currently working on the establishment of such sites. See response to master comment PD-13 regarding management of groundwater pumping on the Bishop Cone.

RESPONSE C1-14

The report authors thank the League for corrections submitted as an attachment to their letter. The corrections offered for the EIR have been incorporated and included in Chapter 3, Revisions to the Agreement and Draft EIR. Those corrections for the Green Book will be submitted to the Standing Committee along with other modifications at the appropriate time.



**Letter C2**

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**California Native Plant Society, Bristlecone Chapter**

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## LETTER C-2

### Comments to be Made at the DEIR Hearing on Dec. 12 in Lone Pine

This draft EIR and its two appendices have some major strengths and for this we are supportive. It has, however, some glaring weaknesses and these must be strengthened before the Agreement can set the stage properly for the long-term protection of the Owens Valley.

First, the town of Lone Pine was reportedly named after a single large pine which grew west of town several hundred feet above the aquaduct. This was most likely a hybrid Ponderosa Pine similar to those now growing along other Owens Valley creeks such as Independence, South Fork of Oak Creek, Big Pine, Bishop and Lower Rock Creek. They are remnants of a presumed once larger forest of Ponderosa Pine which grew along the lower slopes of the Sierra when the area was much wetter many thousands of years ago.

A young yellow pine, presumably a Ponderosa Pine since the other yellow pines in the area are all Jeffrey Pine and grow above 7500 feet or so far up the Sierra slopes, a young yellow pine grows just west of the aquaduct and Lone Pine now has a replacement for its once unique <sup>parent</sup> tree now long gone. This tree, about 20 feet high, is, however, threatened by a proposed new pump as indicated in Chapter 16 and as shown on Figure 16-11 on page 16-30. This pump could cause the tree's demise if the groundwater table is significantly reduced. It is expected that eventually this tree, if undisturbed, will get a hundred feet tall with a 3' base. Drying

of a large tree cannot be quickly reversed. By the time it is visible it is too late and permanent damage can occur. Even though it is located near a small ditch carrying water towards Lone Pine, this ditch in itself would not be enough for a large mature tree with a widely spread root system. If most of the roots die the tree would die too.

This pump must be sited so as to make absolutely certain that no harm comes to this natural, unique Lone Pine tree.

Another point that I wish to make is in regard to one of the few remaining springs in the Valley. It is called Reinhackle Spring and is sited about 3/4 mile northeast of the Alabama Gates. There are other natural springs and seeps in the Valley but none such as this. After four years of drought it is still flowing at an estimated  $1\frac{1}{2}$  cfs. It has a large pond and marshy seep area in connection with it which houses sora and Virginia rails even as I speak. Three snipe were there a week ago when I visited. The flow from this spring provides dozens of acres of pasture irrigation and wet meadows. It supports a large growth of willow and cottonwood -- shade and shelter for the valley's elk.

2 All springs are important in the desert and this one is especially important because it is a remnant of what was once common in the Valley. Yet it is threatened by the proposed installation of three new pumps as shown in Figure 16-9A on page 16-25. To have this spring dry up, even temporarily, due to pumping is unacceptable and yet this is considered to be quite likely by hydrologist Bill Hutchinson as cited on page 16-35. These pumps must be located to reduce this likelihood to near zero. Springs provide a special wetland habitat which cannot

be mitigated~~adequately~~. Reduction of the flow for significant periods or frequent partial reduction will permanently alter the habitat and its value and cannot be replaced once affected.

I could go on and on but there isn't time now. My organization will submit lengthy detailed comments. We will certainly strongly emphasize the need for a managed grazing program which must consider the cumulative impacts of grazing and water management. What's the value to the welfare of the vegetation in attempting to bring about its recovery from over-pumping if it is subjected to concentrated grazing pressures? The grazing management program must be fully analyzed and the issuance of grazing permits be subject to CEQA review by the public.

Thank you for providing us with the opportunity to make preliminary comments upon these important documents.

*Vincent Yoder*

Vincent Yoder, President

Bristlecone Chapter

California Native Plant Society

*10 boxes*

*Love Lake, CA*

*93595*



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## RESPONSES TO COMMENTS

### LETTER C2

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#### RESPONSE C2-1

The location of the yellow pine tree cited in this comment is stated to be near a ditch, indicating that the water table is probably not sustaining the tree, and that the tree is more dependent on the surface water in the ditch. The depth to water in this area is relatively deep (25 to 40 feet). It is unlikely that operation of proposed well LP-1 would affect this tree. Please refer to response to master comment AF-2 for additional discussion of pumping near sensitive areas.

#### RESPONSE C2-2

Please refer to the responses to master comments WA-4 and AF-2 regarding the protection of Reinhackle Spring, and PD-5 for discussion of spring and seep protection under the Agreement.

#### RESPONSE C2-3

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.



**Letter C3**

**University of Southern California**

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UNIVERSITY OF SOUTHERN CALIFORNIA  
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December 13, 1990

Donald G. McBride  
Sr. Water Works Engineer  
Department of Water & Power  
City of Los Angeles  
111 North Hope Street, Room 1466  
P.O. Box 111  
Los Angeles, CA 90051

Dear Mr. McBride:

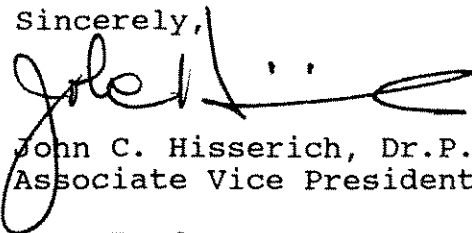
Thank you for the opportunity to attend the recent orientation about the Draft EIR for the Second Los Angeles Aqueduct from the Owens Valley. The potential for a serious drought in Southern California is a matter of grave concern.

At the Health Sciences Campus of the University of Southern California, we have instituted strict water conservation measures but, of course, an adequate supply of water is essential to the operation of a major medical treatment and research facility. A threat to our water supply is a threat to our survival.

In addition to concerns about this facility, my involvement with the Lincoln Heights Chamber of Commerce and the Enterprise Zone in the area has made me aware of the difficulty of maintaining a thriving economic environment in the surrounding community. A serious shortage of water combined with other environmental constraints could spell the end of thousands of jobs in our community.

I encourage you to pursue your efforts to complete the Owens Valley project. The conditions spelled out in the draft EIR seem fair to all concerned.

Sincerely,

  
John C. Hisserich, Dr.P.H.  
Associate Vice President, Health Affairs

cc: Fred Herrera



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**RESPONSES TO COMMENTS**  
**LETTER C3**

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**RESPONSE C3-1**

Comment noted. No further response is required.



**Letter C4**

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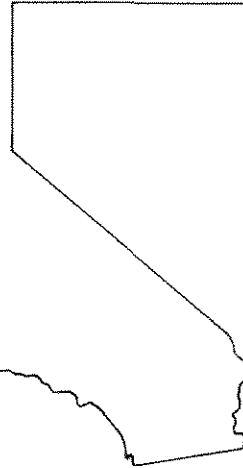
**State Water Contractors**



# state water contractors

555 Capitol Mall, Suite 725 • Sacramento, CA 95814  
George R. Baumli, General Manager

(916) 447-7357  
FAX 447-2734



## Directors

Clinton Milne, President  
San Luis Obispo County FC&WCD  
Ronald R. Esau, Vice President  
Santa Clara Valley Water District  
David B. Okita, Secretary-Treasurer  
Solano County Water Agency  
Thomas N. Clark  
Kern County Water Agency  
Duane L. Georgeson  
Metropolitan Water District  
of Southern California  
Thomas R. Hurlbutt  
Tulare Lake Basin Water Storage District  
Thomas E. Levy  
Coachella Valley Water District  
Robert C. Sagehorn  
Castaic Lake Water Agency  
Wallace G. Spinarski  
Antelope Valley-East Kern Water Agency

December 21, 1990

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

Dear Mr. Davis:

The State Water Contractors supports the Los Angeles Department of Water & Power's draft EIR, "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct", dated September 1990.

The State Water Contractors represents 28 of the 30 public agencies that have contracted with the State for water from the State Water Project.

The draft EIR demonstrates that the proposed project to annually pump an average of 42,000 acre-feet of water from the Owens Valley Ground Water Basin can be implemented without an adverse effect on the valley environment. The environment in other parts of the State would be positively effected.

If this water cannot be obtained from the Owens Valley, it will increase the demand on the Metropolitan Water District of Southern California, which will increase their demand on the State Water Project. The capability of the State Water Project is now stressed to the limit and increased demands will worsen the situation. The primary adverse environmental effects of not implementing the proposed Owens Valley Project would show up in the Sacramento-San Joaquin Delta where the State Water Project pumps are located.

With a prolonged drought facing California, it is of utmost importance from a statewide perspective to fully utilize all viable water sources. The proposed project in Owens Valley is an excellent example of a project that should be implemented.

Sincerely,

*George R. Baumli*  
George R. Baumli  
General Manager

c: Member Agencies  
Dennis Williams, LADWP





---

**RESPONSES TO COMMENTS**  
**LETTER C4**

---

**RESPONSE C4-1**

Comment noted. No further response is required.



**Letter C5**

---

**Bel Air Country Club**



LETTER C-5



# *Bel-Air Country Club*

*10768 Bellagio Road  
Los Angeles, California 90077  
(213) 472-9563*

RECEIVED

JAN 7 1991

J.P. ASSOCIATES  
LOS ANGELES, CA.

December 31, 1990

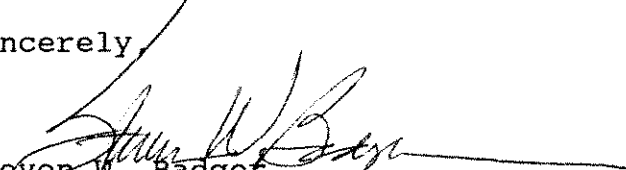
John Davis, Senior V.P.  
EIP Assoc.  
150 Spear Street  
Suite 1500  
San Francisco, CA 94105

Dear Mr. Davis:

On behalf of Bel-Air Country Club, we emlore INYO as fellow Californians to unite and agree to the DEIR for the INYO/Los Angeles Groundwater Pumping Agreement.

This agreement is vital to life and business in California which includes Inyo County. We have done and will continue to do our part of the bargain. INYO, please do yours by affirming this agreement.

Sincerely,

  
Steven W. Badger  
Golf Course Superintendent  
Bel-Air Country Club

SWB/jg



---

**RESPONSES TO COMMENTS**  
**LETTER C5**

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**RESPONSE C5-1**

Comment noted. No further response is required.

1  
2  
3  
4



**Letter C6**

**Homeowners of Encino**





**HOME**

# Homeowners of Encino

◆ Serving the Homeowners of Encino ●


GERALD A. SILVER  
President  
PO BOX 260205  
ENCINO, CA 91426  
Phone (818)990-2757

12/31/90

Mr. John Davis, Sen. VP  
EIP Assoc.

Enclosed is our response to the Draft EIR on the Inyo/LA DPW project. Please review these comments in preparing the Final EIR.

Please send us a copy of the Final EIR, when completed. Also add our name to your mailing list for future project comments. Thank you,

  
Gerald A. Silver,  
President



HOMEOWNERS OF ENCINO  
GERALD A. SILVER, PRESIDENT  
P. O. BOX 260205  
ENCINO, CA 91426-0205  
(818) 990-2757

RECEIVED

JAN 7 1991

EIP ASSOCIATES  
SAN FRANCISCO, CA.

CITY OF LOS ANGELES, DEPT. OF WATER & POWER

AND COUNTY OF INYO

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

|                             |   |                      |
|-----------------------------|---|----------------------|
| HOMEOWNERS OF ENCINO        | ) | RESPONSE TO          |
|                             | ) |                      |
|                             | ) | DRAFT                |
|                             | ) |                      |
| LA DEPT. OF WATER & POWER   | ) | ENVIRONMENTAL IMPACT |
|                             | ) |                      |
| AND COUNTY OF INYO          | ) | REPORT (DEIR)        |
|                             | ) |                      |
| EIP Assoc./John Davis, V.P. | ) | SEPTEMBER 1990       |

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)  
(CEQA, SEC. 21000 et. seq. and GUIDELINES SEC. 15087)

RESPONSE to the Draft Environmental Impact Report (DEIR) for a  
project known as:

INYO COUNTY/LOS ANGELES COUNTY GROUNDWATER MANAGEMENT PLAN

The joint project applicants are:

City of Los Angeles, Department of Water & Power and  
the County of Inyo

The proposed project affects transportation, earth, air, water,  
plant life, population, energy, utilities, land use, and other  
environmental elements in Encino, and the Los Angeles area.

This document contains our response to the scope and content of the

1 draft environmental information which is germane to your environmental  
2 evaluation of this project.

3 I.

4 HOMEOWNERS OF ENCINO, INC.

5 This Response is filed by the Homeowners of Encino, a California  
6 non-profit corporation duly organized and existing under the laws of  
7 the State of California. Homeowners of Encino is a public benefit  
8 association organized for the purpose of promoting social welfare.  
9 This corporation seeks to protect the residential character of its  
10 neighborhoods and to enhance the quality of life for its members and  
11 the community. Many of its members reside within the region of  
12 the proposed project, and will be heavily impacted by it.

13 II.

14 DESCRIPTION OF PROJECT

15 This project involves the increased export of water from Owens  
16 Valley to Los Angeles. It also involves increased pumping of  
17 groundwater for export, operation of wells, future construction of 15  
18 new wells, a reduction in the amount of irrigated acreage of Los  
19 Angeles owned lands, an increase in the amount of surface water  
20 diverted for export, and the implementation of a Long-Term Groundwater  
21 Management Plan (Agreement).

22 The project will affect 4.2 million people living in Los Angeles  
23 City and County and residents in Inyo County. The project considers  
24 various alternatives to providing this expanded water export to Los  
25 Angeles. The project will effect soils and geology, plant life,  
26 noise, land use, population, housing, transportation and circulation,  
27 community services and facilities, aesthetics, recreation, and  
28

1 cultural resources. The expansion of water export will have both  
2 primary and secondary impacts.

3 III.

4 GENERAL COMMENTS ON THE DRAFT EIR

5 The DEIR raises numerous issues of concern to us. These include  
6 the direct major negative environmental impacts, secondary impacts,  
7 air quality impacts, and growth inducing impacts of an expanded water  
8 system for the City of Los Angeles. We believe every effort should be  
9 made to maintain the present water supply to Los Angeles, but not  
10 expand the export of water to Los Angeles. Therefore, we support the  
11 No Project Alternative, since it would provide the most  
12 environmentally sound alternative.

13 Based upon the DEIR, it appears that Alternative 1, No Project  
14 is the most environmentally effective choice and would force growth  
15 management on the City and County of Los Angeles. Alternative 1 would  
16 require taking full advantage of the system's water conservation and  
17 reclamation. While we support water reclamation, it is turning out to  
18 be an impractical concept for a system this size. At present there is  
19 very little demand for the huge amount of water being reclaimed by the  
20 system, and there is no reason to believe that this will change. As  
21 it is now, 95 percent of the water from the Tillman "reclamation"  
22 plant is flushed down the L. A. River and out to sea.

23 We never the less prefer a No Project Alternative 1, with strong  
24 qualifications and growth control limits. We do not accept the  
25 consultants "inevitable growth" argument on page S-14 that if  
26 additional water export to Los Angeles is curtailed, growth  
27 will still occur. The best way to make that prophecy come true  
28

1 is to implement Alternative 3, (Water Management by Maintaining Water  
2 Tables) and continually increasing water exported to Los Angeles. We  
3 do not favor the other alternatives, which in effect increase water  
4 export at a high cost to other communities and biota.

5 Expanding the supply of water to Los Angeles, while depleting the  
6 water table elsewhere will create an environmental nightmare. The  
7 DEIR outlines only a few of the negative effects on air quality,  
8 and utilities. The report overlooks the gross secondary impacts and  
9 negative effects on air quality in the Los Angeles region.

10 The DEIR should stress the enormously high price that will be  
11 paid to increase water export to Los Angeles. It will mean a huge  
12 population increase, logically followed by changes in transportation,  
13 such as diamond lanes, light rail, conversion of 40 percent of  
14 passenger vehicles, 70 percent of the trucks, and 100 percent of the  
15 buses to methanol. Streets will have to be widened, vanpools forced  
16 on businesses, parking and auto use restrictions, and the shutting off  
17 of aircraft APU units while sitting on the runway.

18 The approval of this project will result in a greatly expanded  
19 water system which will support an expanded population with virtually  
20 none of the effective mitigation measures in place.

21 We feel that no additional water should be exported to Los  
22 Angeles, until an effective growth management plan is implemented. No  
23 capacity should be added to the water service area until proven and  
24 effective air quality and other mitigation measures are in place. No  
25 water system expansion that should be considered until the secondary  
26 traffic, sewage and air quality impacts have been successfully  
27 mitigated.



1 The DEIR should place the financial investment of system  
2 expansion in perspective. The DEIR proposes an increase in the amount  
3 of water to be pumped and transferred by the system. At the same  
4 time, water charges are expected to increase in the next five years.  
5 What this means is that the ordinary householder will be paying twice  
6 as much for his or her water supply in order to provide for the  
7 "inevitable" expansion anticipated by the consultant. The DEIR should  
8 be revised to show the marginal costs of each additional gallon of  
9 water that is exported as the system expands.

10 We believe the present water supply system should be refined and  
11 improved, but the Lead Agency must tread carefully before granting any  
12 system expansion beyond the present supply.

#### 13 IV.

#### 14 ADEQUACY OF THE DEIR

15 We believe that the proposed project will have significant  
16 impacts on the environment that have not been fully addressed in the  
17 Draft EIR. It will have a significant impact on air quality,  
18 water, natural resources, population, noise, geology, energy, and  
19 population growth.

20 We ask that you revise your findings, and prepare a Final EIR,  
21 based upon a more thorough analysis of the No Project alternative. It  
22 should address the following environmental concerns which we believe  
23 have been overlooked or inadequately dealt with in your Draft EIR:

#### 24 V.

#### 25 IMPACTS ON EARTH

26 This project will result in disruptions, displacements,  
27 compaction and overcovering of soil due to expanded water supply  
28 lines. The Final EIR should specify what grading will be done,

1 and provide a time line indicating the starting and ending dates of  
2 all grading and construction activities. Haul routes should be  
3 described, and mitigation proposed for dealing with the traffic  
4 congestion created by the hauling of large amounts of soil on city  
5 streets to dumpsites.

6 The information presented in the DEIR should be sufficient to  
7 allow for a clear understanding of the geologic hazards and their  
8 impacts. The DEIR should present a comprehensive summary of known  
9 geologic and seismic hazards near water supply lines.

#### 10 VI.

#### 11 AIR IMPACTS

12 The DEIR did not fully consider the primary air impacts.  
13 A project of this size will have a deteriorating effect on air quality  
14 in the region, which includes localities that do not meet Federal and  
15 State air quality standards. The construction of the project will  
16 generate Carbon Monoxide, Nitrous Oxide, Ozone and particulate matter,  
17 making it more difficult to attain the required air standards in the  
18 region.

19 Please identify in the Final EIR the specific increases of air  
20 pollutants generated by this project, and the cumulative impacts on  
21 the air quality in the region. Your assessment should show how this  
22 project, when taken together with all other proposed projects in the  
23 area will impact air quality. It should show threshold levels of  
24 significance for each type of air emission.

25 The City of Los Angeles and the EPA have entered into an Consent  
26 Decree regarding growth within the Hyperion Service Area. They have  
27 agreed that growth within the area will not result in air emission  
28

1 4 increases, nor impede the region's progress toward National Ambient  
2 Air Quality Standards (NAAQS) attainment. Your Final EIR should show  
3 that all primary and secondary air impacts have been reduced to  
4 insignificance, in order to comply with the City of Los Angeles and  
5 EPA agreement. Anything short of this is a breach of the terms of the  
6 Federal consent decree, and actionable, with the possibility of  
7 substantial fines being imposed against the City.

8 Also address the air impacts at both the local level, and within  
9 the region. Explain how these impacts will be fully mitigated.  
10 Specifically, quantify all related vehicular air emissions, and  
11 include the factors, formulas and computations used to arrive at these  
12 impacts, and their mitigations. Provide an appendix with all  
13 necessary and supporting documentation, including the paper trail that  
14 will allow concerned citizens, or decision makers to trace your steps,  
15 and your conclusions with regard to air impacts.

16 Please explain in the Final EIR what effects diesel fumes,  
17 gasoline powered equipment fumes and construction odors will have upon  
18 those with respiratory problems, or the aged living nearby. Also  
19 discuss the impact on local flora and fauna, giving specific effects  
20 upon plant and animal life, as a result of the additional air  
21 degradation that may be caused by the project.

22 5 The EPA has stressed the importance of secondary air impact  
23 analysis. The Final EIR should assess the secondary air impacts that  
24 will result from this project and please provide adequate mitigations  
25 for these air impacts.

26 Please see that the Final EIR conforms to the Air Quality  
27 Handbook for Preparing Environmental Impact Reports, revised,  
28 available from the South Coast Air Quality Management District. Also

1 please fully comply with the Guidance for Implementation of Conformity  
2 Procedures, available from the Southern California Association of  
3 Governments.

4 Your Final EIR must also conform to the State of California Air  
5 Resources Board guidelines. Please see that short-term, long-term,  
6 local scale analysis, corridor analysis, hazardous pollutant analysis  
7 and cumulative impact analysis aspect of this project are addressed  
8 more fully. Specifically see that it conforms to the Guidelines for  
9 Air Quality Impact Assessments: General Development and Transportation  
10 Projects, Report No. RP-83-002, available from the State Air Resources  
11 Board.

## 12 VII.

### 13 LONG TERM WATER IMPACTS

14 The project is located in a permanent drought area. The long  
15 term water impacts from this project have not been fully addressed.  
16 Identify source of water, how it will be used in the project, and how  
17 the removal of water from the aquifers will be replaced. Fully  
18 explain the long term quantitative impacts on the local and regional  
19 water supply, as a result of this project. Estimate water consumption  
20 both during and after construction. Provide a detailed list of  
21 mitigations to reduce the consumption of water to insignificance.

22 Please also provide mitigations for dealing with secondary water  
23 impacts. The growth sustained by a project of this size will consume  
24 large amounts of fresh water, which are in short supply in the region.  
25 Include the factors, formulas and computations used to arrive at these  
26 impacts, and their mitigations. Provide an appendix with all  
27 necessary and supporting documentation, including the paper trail that  
28

will allow concerned citizens, or decision makers to trace your steps, and your conclusions with regard to water impacts.

#### VIII.

##### IMPACT UPON ANIMAL AND PLANT LIFE

A project of this size will have a detrimental effect upon the flora and fauna in the project area. The area is a natural habitat for birds and other animals. It will not be possible to construct the project, without a serious impact on the local biota. Provide a detailed assessment of impacts on both plant and animal life as a result of the project. Also provide detailed mitigations to reduce these potential impacts to insignificance.

#### IX.

##### NOISE IMPACTS

A substantial amount of noise will be generated by the proposed project during construction. The movement of heavy vehicles, trucks, compressors and construction equipment will create severe noise problems. Show how it will be possible to expand water export, install additional water supply lines, including removal of many cubic yards of soil without creating severe noise impacts. Noise must be reduced to insignificance.

The Final EIR should explain the effects of noise levels on local residents and construction workers, during construction, and the impact on the emotional and physiological well being of people living nearby. Please explain in detail the effects of specific pieces of construction equipment, the noise levels, dBA, frequency and duration of sound that people will be exposed to. Also explain the impact of sustained noise upon the aged or those who are ill and may reside near the construction site. The Final EIR should

1 provide mitigation measures that will reduce the noise created by this  
2 project to insignificance.

3 X.

#### 4 LIGHT AND GLARE IMPACTS

5 Light and glare was not adequately assessed in the Draft EIR.  
6 Residents living near the construction site will be subjected to light  
7 and glare. Added water capacity means more buildings will be  
8 constructed and this must be mitigated in the Final EIR. The  
9 construction project will result in altered shade and shadow  
10 conditions which should also be mitigated to insignificance in the  
11 Final EIR.

12 XI.

#### 13 CHANGES IN POPULATION

14 Changes in population will occur if this project is approved. It  
15 will alter the distribution, density and growth rate in the region.  
16 Providing more water capacity will mean more buildings, jobs and  
17 employment in this region will make it more difficult to achieve a  
18 balance between the environment and the population. It may cause  
19 greater population density in a region already without adequate  
20 infrastructure. We do not agree with your assessment that the job  
21 housing balance in the region will become more favorable by expanding  
22 the water export to Los Angeles.

23 In your Final EIR, please show how the project adheres to the  
24 job/housing balance. Provide a detailed assessment of the growth and  
25 job impacts. What kinds and types of jobs will be created, as a  
26 result of more water. Analyze the effects on unemployment on  
27 individuals with various jobs skills. Also explore what housing is  
28

1 available to accommodate any increase in direct and indirect  
2 employment. How does this project conforms to the Regional Housing  
3 Needs Assessment. Provide a detailed list of mitigation measures to  
4 deal with any job/housing imbalance created by the project.

## 5 XII.

### 6 TRAFFIC AND CIRCULATION

7 Transportation and traffic circulation will be negatively  
8 impacted by the proposed project. There are numerous E and F level  
9 intersections in the region. The construction of this project and  
10 removal of large amount of soil over city streets will impede traffic  
11 and circulation and make gridlock worse. The Final EIR should explain  
12 how the E and F level, gridlocked intersections in the area will be  
13 mitigated to insignificance.

14 Because of the project's magnitude and the substantial secondary  
15 impacts, the proposed project will generate significant traffic  
16 congestion problems. Traffic congestion resulting from the expansion  
17 of freeways and access roads, lane closures, detours, slow moving  
18 construction vehicles and equipment, project personnel commutes, etc.  
19 significantly increase traffic and mobile-source air emissions.

20 Please provide detailed maps in the Final EIR which will show how  
21 the project will mitigate traffic in the area, including the number of  
22 lanes of traffic that will be lost due to the movement of heavy  
23 equipment to and from the site during construction.

24 Please consult with the South Coast Air Quality Management  
25 District and obtain a table of Potential Mitigation Measures. This  
26 table includes numerous incentives, controls and procedures which  
27 should be considered for inclusion in the Final EIR.

28 Since the project has corridor level transportation impacts, what

1 are the long term impacts? Estimate the number of trips generated,  
2 and provide documentation on the assumptions. How will the project  
3 affect public transportation in the region, and locally? What will  
4 the impact be on nearby freeways and will it encourage the need to  
5 double deck freeways.

6 This project will have a mutual impact on other projects in the  
7 area. Explain in the Final EIR the interactive impacts on the  
8 existing circulation system, on ATSAC, and the secondary highways.  
9 Explain thoroughly how you arrive at trip generation rates, trip  
10 distributions, time of day analysis, effects on A.M. and P.M. traffic  
11 conditions, etc.

12 The Final EIR should deal with the phasing issue comprehensively.  
13 What will be the incremental impacts on traffic, and if phased, how  
14 will the infrastructure be phased in so that all mitigations are in  
15 place to prevent increases in traffic or a degradation of circulation?

16 Include the factors, formulas and computations used to arrive at  
17 these impacts, and their mitigations. Provide an appendix with all  
18 necessary and supporting documentation, including the paper trail that  
19 will allow concerned citizens, or decision makers to trace your steps,  
20 and your conclusions with regard to traffic impacts.

### 21 XIII.

#### 22 PUBLIC SERVICE IMPACTS

23 The Final EIR should fully address impact on public services.  
24 Police and fire services are inadequate to meet the present community  
25 needs. This project will generate additional demands that the City  
26 systems cannot handle. The Final EIR should show how the applicant  
27 intends to mitigate the drain on local public services. It should  
28



1 present a detailed explanation of the degraded response times to  
2 police, fire and paramedic services. It should present specific  
3 mitigations and funding mechanism that show how the applicant will  
4 offset the deteriorated public service response capability.

5 The Final EIR should also analyze police services and crime rates  
6 in the area, and the impact of this project on these rates. Include  
7 average response times, and show the number of officers deployed in  
8 the area, and the impact on current levels of staffing.

#### 14 XIV.

##### 9 IMPACT ON ENERGY AND UTILITIES

10 Utilities will be impacted by the proposed project. The Lead  
11 Agency is, or should be, aware of the limits on solid waste disposal.  
12 Large amount of soil will have to be trucked to a dumpsite as the  
13 project proceeds, making landfill disposal problems worse.

14 The Final EIR should quantify the impact that this project will  
15 have on the capacity and exhaustion of local landfills, both during  
16 and after construction. Specifically how many cubic yards of soil  
17 will be trucked to landfills, and how much solid waste will be  
18 exported, and to which sites? Show haul routes and the time of day  
19 when city streets will be used for this purpose.

20 The Final EIR should analyze the availability of hydraulic  
21 capacity for the anticipated flow in the local and interceptor sewers  
22 serving the proposed project area. The quantity and quality of  
23 wastewater to be discharged to the sewer system should be thoroughly  
24 analyzed. The supply of water cannot be evaluated in a vacuum which  
25 ignores the sewage and water disposal issue.

26 Include the factors, formulas and computations used to arrive at  
27 these impacts, and their mitigations. Provide an appendix with all  
28

1 necessary and supporting documentation, including the paper trail that  
2 will allow concerned citizens, or decision makers to trace your steps,  
3 and your conclusions with regard to energy, sewage and utility  
4 impacts.

5 XV.

6 AESTHETIC IMPACTS

7 This project will result in aesthetically offensive sites to  
8 public view. The project will have a direct impact on aesthetics and  
9 once the added water capacity is available, more buildings will be  
10 built. Explain how this project will impact the ambiance and  
11 habitability of the community. What impact will this project have on  
12 the other business establishments, access to businesses and the  
13 present viewscape? What impact will it have on the marketability of  
14 homes nearby?

15 XVI.

16 GROWTH INDUCING IMPACTS

17 The Final EIR should discuss properly the growth inducing impacts  
18 of the project and the environmental effects, and must be adequate.  
19 Please include a detailed forecast of growth for each phase of the  
20 project. What will be the cumulative impacts of growth in the region?  
21 How is this related to the Growth Management Plan forecast, at the  
22 expected date of project or phase completion?

23 In Laurel Heights Improvement Assoc. of San Francisco, Inc. v.  
24 Regents of the University of California (88 Daily Journal D.A.R.  
25 15037), the California Supreme Courts laid down clear guidelines and  
26 requirements for the preparation of an environmental document.  
27 Specifically the Supreme Court stated that "an EIR must include an  
28

analysis of the environmental effects of future expansion or other actions if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects."

Please be sure the Final EIR properly addresses and mitigates growth inducing impacts which will have individually limited, but cumulatively considerable impact. A Final EIR must be prepared which gives thoughtful discussion to dealing with short-term versus long-term effects.

#### XVII.

#### SELECTION OF LEAST DESTRUCTIVE ALTERNATIVE THAT IS FEASIBLE FOR THE APPLICANT

Section 21002 of the Public Resources Code (CEQA) forbids agencies from approving projects with significant adverse impacts when feasible alternatives or feasible mitigation measures can substantially lessen such impacts. (Citizens for Quality Growth v. City of Mount Shasta, 3rd Dist. 1988, 198 Cal.App.3d 433.)

In order to approve the proposed project, the Lead Agency must make findings on each significant impact identified in the Final EIR. The project can only be approved if economic, social, or other conditions make unfeasible mitigation measures identified in the Final EIR. (Guidelines, Sec. 15091.)

The State Guidelines, Sec. 15364, defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors." The applicant cannot make a showing that No Project and preferred

1 alternative is unfeasible because "what is required is evidence that  
2 the additional cost or lost profitability are sufficiently severe as  
3 to render it impractical to proceed with the project." (Citizens of  
4 Goleta Valley v. Board of Supervisors (Goleta I) 2nd District 1988,  
5 197 Cal.App.3d 1167.)

6 The Lead Agency is therefore required under law to approve the  
7 environmentally least destructive alternative, since it satisfies the  
8 feasibility standard of the CEQA requirements. In selecting this  
9 alternative, the Lead Agency is also supporting "the view that  
10 environmental values are to be assigned greater weight than the needs  
11 of economic growth ... The act thus requires decision-makers to assign  
12 greater priority to environmental than to economic needs." (San  
13 Francisco Ecology Center v. City and County of San Francisco (1st Dis.  
14 1974) 48 Cal.App.3d 584, 590-591)

15 XVIII.

16 NO STATEMENT OF OVERRIDING CONSIDERATIONS  
17 SHOULD BE ISSUED BY THE LEAD AGENCY

18 We ask that the Lead Agency prepare a Final EIR that interprets  
19 CEQA to afford the fullest possible protection for the environment  
20 within the reasonable scope of the statutory language. (Friends of  
21 Mammoth v. Board of Supervisors (1972) 8 Cal.3d. 247)

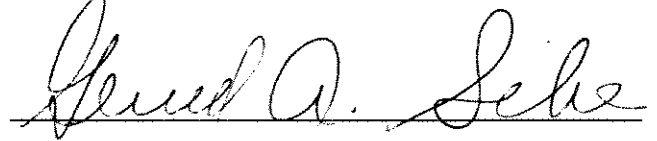
22 After circulating and certifying the Final EIR, we ask the Lead  
23 Agency select the least environmentally destructive alternative, and  
24 not issue a statement of overriding considerations.

25 XIX.

26 We appreciate your allowing us the opportunity to comment on the  
27 Draft EIR. We look forward to receiving a detailed and comprehensive  
28

Final EIR, fully in compliance with CEQA, State and local Guidelines.

Executed at Encino, California on December 31, 1990 by Gerald A.  
Silver, President, Homeowners of Encino.

A handwritten signature in cursive script, reading "Gerald A. Silver", written over a horizontal line.

GERALD A. SILVER



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## **RESPONSES TO COMMENTS LETTER C6**

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### **RESPONSE C6-1**

Analysis of socioeconomic costs is not required by CEQA.

### **RESPONSE C6-2**

No expanded water supply lines are proposed as part of this project; any subsequent construction activities would be subject to CEQA review.

### **RESPONSE C6-3**

Air quality is discussed in Chapter 12 of the Draft EIR. Also, please refer to response to master comment AQ-1 for discussion of cumulative air quality impacts and MT-5 concerning cumulative effects.

### **RESPONSE C6-4**

This comment alludes to air quality issues at Owens Dry Lake. Please refer to responses to master comments PD-3 and AQ-1 for discussion of this issue.

### **RESPONSE C6-5**

Air quality is discussed in Chapter 12 of the Draft EIR. No secondary air quality impacts have been identified for the study area within Owens Valley.

RESPONSE C6-6

The analysis requested is beyond the scope of this EIR. The comment identifies general development and transportation project analyses that do not apply to the proposed project.

RESPONSE C6-7

Water resources are discussed in Chapter 9 of the Draft EIR. Owens Valley is not considered a "permanent drought area." The issues of groundwater and water supply are addressed in Chapter 3, Water Supply for Los Angeles.

RESPONSE C6-8

Vegetation impacts are discussed in Chapter 10 of the Draft EIR; effects on wildlife are discussed in Chapter 11.

RESPONSE C6-9

No significant effects on ambient noise levels are anticipated as a result of project implementation. Noise was not considered as a relevant issue during project scoping.

RESPONSE C6-10

No significant effects on light and glare are anticipated as a result of project implementation. Light and glare were not considered as relevant issues during project scoping.

RESPONSE C6-11

Land Use and Economic Development are discussed in Chapter 14 of the Draft EIR. No changes in population will occur in the Owens Valley region as a result of the project.

RESPONSE C6-12

No significant effects on traffic patterns or volumes in Owens Valley region are anticipated as a result of project implementation. Traffic was not considered a relevant issue during project scoping.



RESPONSE C6-13

No significant effects on public services in the Owens Valley region are anticipated as a result of project implementation. Public services effects were not considered relevant issues during project scoping.

RESPONSE C6-14

Energy is discussed in Chapter 13 of the Draft EIR.

RESPONSE C6-15

No significant effects on aesthetics are anticipated as a result of project implementation. Aesthetics effects were not considered relevant issues during project scoping.

RESPONSE C6-16

Growth and cumulative impacts are discussed in the Draft EIR in Chapter 17, CEQA Considerations.

RESPONSE C6-17

Comment noted. No further response is required.



**Letter C7**

---

**Northridge Chamber of Commerce**



LETTER C-7

ST 11-1204-10  
JAN 22 1991

**Chamber Of Commerce**

*Accredited by the United States Chamber since 1975*

# NORTHRIDGE

*An Address You Want To Have*

January 9, 1991

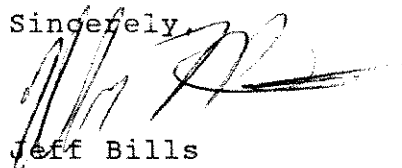
Mr. John Davis, Senior V.P.  
EIP Associates  
150 Spear Street, Suite 1500  
San Francisco, CA 94105

Dear Mr. Davis:

On behalf of the 630 members of the Northridge Chamber of Commerce and it's Board of Directors, I would like to let you know that you have the support of our membership for the Inyo/Los Angeles Groundwater Management Plan agreement as expressed in the draft Environmental Impact Report.

We believe this is a good agreement for both sides and fairly addresses the environmental issues of the Owens Valley as well as the need for water in the City of Los Angeles.

Sincerely,



Jeff Bills

Member of the Board of Directors and  
Chairman Planning & Zoning

cc: Mr. Joseph Roy



---

## **RESPONSES TO COMMENTS**

### **LETTER C7**

---

#### **RESPONSE C7-1**

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 C8**

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**West Hills Chamber of Commerce**





January 14 , 1991

1211 60111

JAN 17 1991

1211 60111

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

Dear Mr. Davis:

We are concerned business people and residents of West Hills in the San Fernando Valley. We support the City of Los Angeles Department of Water & Power and County of Inyo water agreement as proposed. This agreement in its current form is vital to the welfare of our community. Reduction in our water availability would place a severe burden on our business and family life.

Very truly yours,

Pat Sladky  
Pat Sladky, President  
West Hills Chamber of Commerce

Goldwell Banker Real Estate

M. Rosenfeld  
AN OCCASIONAL BSKT

Jois Curran Klein  
West Hills Resident

al Rosenberg  
Blue Star Dist.

Serena Friedman M.D.  
(West Hills - Physician = M.D.)

Edward P. Young  
WEST HILLS RESIDENT

Don Don  
Wendy Hamburgers

Frank Diller

PA W  
Signal Graphics

Anna Berti  
West Hills Resident

Deborah Smith  
West Hills Resident

Mr. John Davis, Senior Vice President  
EIP Associates  
January 14, 1991  
Page 2

Kathleen Crowley  
For Douglas Co.  
Spencer Hudson / Assistant  
Assistant

Barbara Berta  
West Hills Resident

Charles Parist  
Financial Network Investment  
Corp.

Steve Mahan  
Century 21 Victory Realty

Cliff Hottel  
Humana Hospital West Hills

George Sagar  
A.V.P./Manager  
Valley Federal Saving & Loan

---

**RESPONSES TO COMMENTS  
LETTER C8**

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**RESPONSE C8-1**

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 C9**

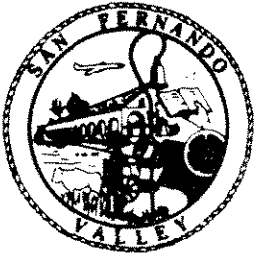
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**United Chamber of Commerce of the San Fernando Valley**





LETTER C-9



**UNITED CHAMBERS OF COMMERCE  
OF THE SAN FERNANDO VALLEY**

11550 Indian Hills Road, Suite 281, Mission Hills, CA 91345  
(818) 365-4674

JAN 24 1991

SAN FRANCISCO, CA

**EXECUTIVE  
OFFICERS  
1990-1991**

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**JOHN HALPIN**  
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**JOHN KELLY**  
*Chief Financial Officer*

**AL SOSS**  
*Assistant Finance Officer*

**BERNARD BERMAN**  
*Corporate Secretary*

**MELINDA THOMAS**  
*Corresponding Secretary*

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Mel Wilson 1988-1989  
David Miller 1987-1988  
Jerry Hays 1986-1987  
David R. Miller 1985-1986  
Murray Fink 1984-1985  
Rose Goldwater 1983-1984  
John Steel 1982-1983  
Arthur S. Pfefferman 1981-1982  
Sal Buccieri 1979-1981  
John Bowles 1977-1979

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Studio City  
Sunland/Tujunga  
Sun Valley Area  
Sylmar  
Tarzana  
Universal City/No. Hollywood  
Greater Van Nuys Area  
West Hills  
Woodland Hills

**PATRONS**

Department of Water and Power  
Mel Wilson and Associates Realtors  
Premier Bank  
Southern California Gas Company

January 21, 1991

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

**Re: RECOMMENDED CHANGES IN LONG-TERM WATER MANAGEMENT  
AGREEMENT WITH INYO COUNTY**

Dear Mr. Davis:

For your information, the United Chambers of Commerce of the San Fernando Valley, at our January 14, 1991 Board meeting, passed the attached position regarding the long-term water management agreement with Inyo County.

If you have any questions regarding our position, please feel free to contact me at (818) 363-8776.

Sincerely,

David R. Miller  
Legislative Chairman

DRM/jaa

Enclosure  
As stated above



# UNITED CHAMBERS OF COMMERCE OF THE SAN FERNANDO VALLEY

11550 Indian Hills Road, Suite 281, Mission Hills, CA 91345  
(818) 365-4674

## EXECUTIVE OFFICERS 1990-1991

**DAYLE M. BAILEY**  
*President*

**DON WHITEMORE**  
*Executive Vice President*

**JOHN HALPIN**  
*Vice President, Northwest*

**BUD BROWN**  
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**HARRY MYERS**  
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*Corporate Secretary*

**MELINDA THOMAS**  
*Corresponding Secretary*

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Rose Goldwater 1983-1984  
John Steel 1982-1983  
Arthur S. Pfefferman 1981-1982  
Sal Bucciari 1979-1981  
John Bowles 1977-1979

## MEMBER CHAMBERS

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Canoga Park  
Chatsworth  
Encino  
Granada Hills  
Mission Hills  
Northridge  
Pacoima  
San Fernando  
Sherman Oaks  
Studio City  
Sunland/Tujunga  
Sun Valley Area  
Sylmar  
Tarzana  
Universal City/No. Hollywood  
Greater Van Nuys Area  
West Hills  
Woodland Hills

## PATRONS

Department of Water and Power  
Mel Wilson and Associates Realtors  
Premier Bank  
Southern California Gas Company

## WATER MANAGEMENT AGREEMENT WITH INYO COUNTY

We, the United Chambers of Commerce of the San Fernando Valley, recommend that the City consider the following proposed changes in the long-term water management agreement with Inyo County:

- °Delete the requirements for automatic well turn-off;
- °Provide for a firm minimum amount of increased export resulting from the proposed project of at least 42,000 acre-feet per year;
- °Delete the provision which requires approval of the Inyo County Board of Supervisors before water applied to City-owned lands can be reduced during dry years;
- °Provide sufficient flexibility in the agreement to allow a future reduction in total irrigated acreage of City-owned lands; and
- °Evaluate the benefits associated with the water supplied for environmental and enhancement mitigation projects and modify or delete existing projects which do not provide commensurate environmental benefits.

Position passed 1/14/91

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## **RESPONSES TO COMMENTS LETTER C9**

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### **RESPONSE C9-1**

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 C10**

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**University of California Cooperative Extension, Inyo & Mono Counties**

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COOPERATIVE EXTENSION  
UNIVERSITY OF CALIFORNIA

INYO &amp; MONO COUNTIES

January 23, 1991

207 WEST SOUTH ST.  
TELEPHONE 873-5891  
AREA CODE 619  
BISHOP, CALIFORNIA  
93514Mr. John Davis  
Senior Vice President  
EIP Associates  
150 Spear St., Suite 1500  
San Francisco, CA 94105

Dear Mr. Davis:

These comments are in response to the Draft Environmental Impact Report (DEIR) prepared for the City of Los Angeles Department of Water & Power (LADWP) and Inyo County with your firm's assistance. My comments will be directed at EIR areas which may impact agricultural production systems on LADWP lands.

p. 5-6 Management Procedures, and  
p. 10-71 through 10-74 section titled Impacts of the Agreement (Post-1990)

These sections define the Technical Group's makeup, and outline the protocol that will be used by the Group to monitor and mitigate vegetation changes that may occur at some future point. While the Technical Group has members from both LADWP and the Inyo Water Department who have backgrounds in plant ecology, botany, etc., the Group lacks extensive knowledge and understanding of agricultural production systems in the Owens Valley. The makeup of the Technical Group or of its subcommittees that may one day be working on ANY project affecting an agricultural lease, should be expanded to include the affected lessee, as well as one or more other qualified persons of their choice, familiar with agricultural production systems (for example, a Certified Range Consultant). This would ensure that the Technical Group would consider the secondary impacts to livestock or crop production of projects. To date, this exchange of information has not occurred sufficiently, despite the broad comment that agriculture will continue to be an approved land use, and this lack of understanding is a grave concern among members of the ranching community.

p. 14-17 section 14-3 under Livestock Production, 1970-1990

Nowhere have I seen any economic analyses that would support this statement! While livestock numbers may appear to have stabilized during 1970-1990, this is due to increased outlays by livestock producers for winter feed and supplementation. This increased cost of production has significantly affected the economics of livestock production in the Owens Valley, and is a direct impact of reductions in irrigated pasture lands. While a consistent water

supply on a smaller land area has been a realized improvement over pre-1970 irrigation supplies, there WAS a significant economic cost of the proposed project that has been absorbed by the ranchers, in the form of increased winter feeding costs. This economic cost has not been adequately recognized in the EIR. In addition, ranchers continue to adjust livestock numbers as weather and feed supplies dictate. For example, nearly all area ranchers have reduced livestock numbers 30-50% during the current drought. This has occurred despite expansion of the length of the winter feeding season and federal drought aid assistance.

3 p. 17-5 under Land Management section, "Vegetation is subject to the cumulative impacts of water management and livestock grazing."


I support the continuation of LADWP's present grazing management program, as it is reasonably flexible and allows the lessees to make proactive management decisions based on their production needs, including seeding, fertilization, and other means of vegetation improvement. It should be recognized that crop and livestock production are BOTH affected by water management, and that livestock production in particular is a secondary factor in vigor of Owens Valley vegetation. That concept is not clearly expressed in this section, and in fact, livestock grazing could be perceived as less than favorable due to the wording of this particular statement. Significant portions of the Owens Valley are not grazed during the growing season, and are deferred (rested) until the dormant season, which is beneficial to the vegetation. Livestock grazing also contributes significantly to hazardous fuels reduction, which is an important concern in the Valley, especially around residential areas.

4 p. 18-3 under Organizations and Persons Consulted

It should be brought to your attention that Ms. Robin Conklin's title is that of Office Manager, NOT the Commissioner of the Inyo/Mono County Department of Agriculture. It was also interesting to note that your office did not contact our office during preparation of the DEIR. Perhaps we would have been of assistance in your preparation of comments related to agriculture in Inyo and Mono Counties.

Thank you for the opportunity to comment on the DEIR.

Sincerely,

  
Rhonda R. Gildersleeve, Ph.D.  
Farm Advisor, Inyo & Mono Counties



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## RESPONSES TO COMMENTS

### LETTER C10

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#### RESPONSE C10-1

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

#### RESPONSE C10-2

Comment noted. Livestock grazing management/production are not elements of the project. The Draft EIR accurately describes the trends in livestock production between 1970 and 1990.

#### RESPONSE C10-3

Comment noted. No further response is required.

#### RESPONSE C10-4

Comment noted. No further response is required.



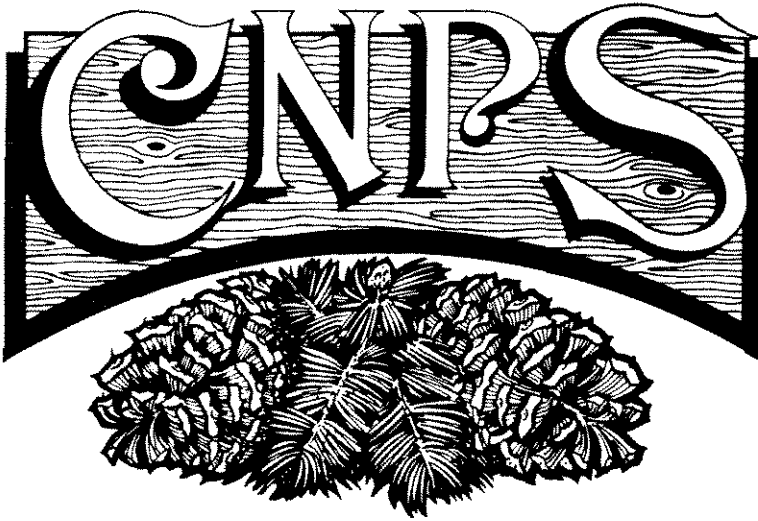
**Letter C11**

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**California Native Plant Society, Bristlecone Chapter**



**BRISTLECONE • CHAPTER**



**LETTER C-11**

DEDICATED TO THE PRESERVATION  
OF THE CALIFORNIA NATIVE FLORA

P.O. Box 330

Lone Pine CA, 93545

January 24, 1991

In re: 89080705

Mr. John A. Davis, P.E.

Senior Vice-President, EIP Associates

150 Spear Street, Suite 1500

San Francisco CA, 94105

Dear Mr. Davis:

This communication represents the combined results of the review by the Bristlecone Chapter of the California Native Plant Society of the Draft Environmental Impact Report for the long term groundwater management plan for the City of Losangeles in the Owens Valley as issued in September 1990.

Although the Water Agreement contains many beneficial provisions for the Owens Valley it also has several important deficiencies, such as: an over-emphasis of the Lower Owens River Project; the need for presentation and analysis of a grazing program; the need for quantification of the term "significant" as it applies to changes from past conditions and future actions; the need to eliminate the provision in which the City unilaterally can turn on pumps to increase soil moisture; the need for better pre-project description of the Valley's environment; and the need to use temporarily the concept of "safe Yield" for pumping. Each of these subjects will be discussed further in the section of this report in which it is applicable.

We realize, of course, that the subject of this DEIR is extremely complex, but this does not relieve the City of the responsibility to prepare a thorough analysis and discussion of the pre-project conditions, the effects of the City's program between 1970 and 1990, and the effects of the Plan when placed into operation. We will show that new information must be added and that this will require a new public review period in which to evaluate the new information not previously included in this DEIR.

We will comment first upon the DEIR, then the Agreement, and finally upon the "Green Book", with wrap-up conclusions and recommendations at the end.

## SUMMARY

Certain aspects of the Summary are deficient but this is to be expected when the DEIR itself is incomplete.

We would point out that on page S-6, second paragraph, you say that ".....groundwater pumping and surface water management would be conducted in a manner that would avoid significant decreases and changes in vegetation from conditions that existed during the 1981-1982 runoff year.....". However, on page S-11 you state that "Because of an extremely wet period between 1982 and 1986, the water table recovered to pre-1970 levels in most areas of the Valley. During this same period, because of high runoff, precipitation and the restored water levels, vegetation recovered to its greatest vigor since 1970. Under the provisions of the Agreement, the goal is to manage groundwater and surface water to avoid significant decreases and changes from these vegetative conditions;....." Actually, on pages B-20 and B-21 the Agreement uses the 1981-1982 runoff year only in discussing the maintenance of Type E Vegetation on Los Angeles-owned lands supplied with water. The statement on page S-6 needs to be clarified. See also your last sentence on page S-21.

On page S-13 you state: "To prescribe mitigation to reduce all of the overall cumulative impacts of Los Angeles' activities in the Owens Valley is beyond the scope of the EIR;....." We would stress that all of the identifiable cumulative impacts must, at the least, be discussed even if mitigation is not possible. If not, explain why all cumulative impacts are beyond the scope of the EIR.

Comments about the Alternative Matrix are covered in the Chapter 6 discussion.

### 1. INTRODUCTION

Page 1-1. Your last sentence should add: "except for the Inyo Mountains approximately south of the Pat Keyes Trail which area is managed entirely by the Bureau of Land Management."

Page 1-8, Article 1.6, 1st paragraph needs to be rewritten! There are other references to this incorrect volume citation such as on page 1-9, "Chapter 5", on page 2-18, Article 2.6, etc.

#### 4. WATER MANAGEMENT IN OWENS VALLEY.

Figure 4-3, page 4-7. This graph is confusing. It does not represent the conditions in Owens Valley. Redo and leave Mono County out.

Table 4-1, page 4-10. Please explain why the town's water "use" began to make such a dramatic drop (75% to 80%) about 1976.

Figures 4-6 and 4-10, pages 4-12 and 4-19, respectively, do not agree for the 1967-1969 years. Did you leave out the 1967 year from Figure 4-10?

#### 5. PROPOSED PROJECT.

Page 5-5. Types B,C, and D Vegetation. We would consider a change from a mixed grass community to a pure salt grass community to be adversely significant and unacceptable.

Page 5-5, Type E Vegetation. A change from irrigated pasture to alfalfa production would not be an acceptable change. Alfalfa is a sterile monoculture whereas pasture is a multi-species culture, particularly if it is "native" pasture. This must be set up as an exception to your allowable conversion. Alfalfa to native pasture is, of course, acceptable!

Page 5.6. MANAGEMENT PROCEDURES. Some statement needs to be added to assure that members of the Technical Group are actually technically qualified in some way to adequately perform their tasks.

Page 5-15, Groundwater pumping on the Bishop Cone. Discussion of this subject will be given in Chapter 16.

Page 5-17, 1st full paragraph. What are your baseline data that guides the amount of water needed to avoid significant decreases and changes in vegetation and recreational uses and wildlife habitats on such irrigated acreage?

In Table 5-3, pages 5-20 and 5-21. You do not list the Wood Lots as E/M projects. Why?

Page 5-24, RELEASES OF LOS ANGELES-OWNED LAND FOR PUBLIC AND PRIVATE USE. These lands must not be "wetlands", pastures, or lands used for mitigation. Wetlands are special in this arid region and should not be converted to commercial, residential, or other uses that destroy its wetland characteristics.

## 6. ALTERNATIVES TO THE PROPOSED PROJECT.

12 [ Figure 6-1 on page 6-4 is incomplete. It needs to include Financial Assistance, Additional Studies, Lower Owens River Project, and the Lone Pine Recreational Area. Also, we would expect that the City would still want to get rid of the local town water supply systems in any alternative, hopefully under the same terms as in the Agreement.

Page 6-16. Section 6.2.6 ALTERNATIVE 6. Under Environmental Effects, you might cite the potential for increased litigation if this Alternative was selected.

Page 6-17. Section 6.2.7 ALTERNATIVE 7. Under Environmental Effects, same comment.

13 [ Page 6-17. Section 6.2.8 IMPLICATIONS etc. State which four alternatives would increase water to Los Angeles (2,5,6,7) and which would decrease water to Los Angeles (1,3,4). Then, in the next paragraph, the first sentence doesn't make sense. Delete the first clause and insert "four" before "alternatives".

Page 6-21. Section 6.3.2. Bottom of page, last line ends with .....  
"structure; and" And what?!

14 [ Page 6-28. Section 6.3.3. Environmental Effects. How can you presume no significant effects if the effects of further Los Angeles River groundwater development are unknown?!

Page 6-44. Water transfers should be all capitals and called Section 6.3.8 (See page 6-20).

Page 6-45. Section 6.3.8 should be numbered 6.3.9.

Page 6-48. Section 6.4 ENVIRONMENTALLY-SUPERIOR ALTERNATIVE

Since Alternative 3 is the environmentally superior one, our organization would recommend its adoption.

## 7. ENVIRONMENTAL IMPACT ASSESSMENT METHOD AND SUMMARY OF IMPACTS AND MITIGATION MEASURES

Beginning on page 7-4 to 7-24. Adding below the Impact Number the page upon which each impact is discussed would be helpful, such as below 8-1 add 8-13; below 8-2 add 8-15; below 9-1 add 9-48, etc.



## 9. WATER RESOURCES.

Page 9-7. Table 9-1. What are the units of discharge, acre feet per year or what?

Page 9-15. Table 9-2. Are these figures annual average or yearly total, or what?

Page 9-22. Groundwater Movement and Groundwater Levels. Interesting to hear that a model can produce satisfactory results from inadequate field data!

Page 9-23. Table 9-3. The column heading for "Transmissivity" shows "(gpd/ft)" whereas note 2 indicates that values are given in "gallons per minute".

"Storativity" is indicated as being dimensionless, but Note 3 indicates that storativity is the volume of water. Volume usually is expressible in some unit of measure.

Page 9-35. Table 9-4. Please show figures for the flow of Reinhackle Spring.

Page 9-55. Last sentence in top paragraph. If Tinemaha Reservoir is removed from service, wouldn't you need another settling basin?

Page 9-57. Table 9-9. Are these figures yearly averages or what?

Page 9-61. Table 9-10. Why aren't pumps 224 (Fish Springs) and 339 (Blackrock) included?

Page 9-80. Table 9-11. Why no figures since 1984? Also, where does "Conveyance Gain" come from?

Page 9-87. Water Quality -- Agreement. The statement above reads "The number of colonies of both coliform and streptococci bacterial (sic) increased steadily during the period of measurement." And yet you say that for Mitigation Measures 9-18 None Required. A proper mitigation measure for this condition would be to eliminate cattle grazing in the vicinity of flowing or ponded water! Since no standard exists for streptococci, it could reach unsatisfactory levels without our knowing it. Better be safe than sorry.

25 10. VEGETATION.

Page 10-3. Fourth paragraph, line 4. I'm sure that you need to insert "mean" before the word "January" in (January low, 21 degrees F.).

In the last paragraph, the figure for the "median" should be 4.3 inches to agree with the dashed line in Figure 10-1. Also, since the median is half-way between the maximum and minimum values, your figure of 4.3 does not appear to be large enough.

Page 10-14. Under Grasslands and Meadows. "Rabbitbrush Meadow" and Nevada Saltbush Meadow" appear to be scrublands in which rabbitbrush and Nevada saltbush have taken over old abandoned farmlands or overgrazed pastures and this should be noted in their descriptions. Application of water and reduced grazing pressure might help bring them back to grassy meadows if the shrubs were removed.

26 Page 10-19. Plants and Habitats of Concern. Nowhere in this Chapter is there a description of the distribution and abundance of species of concern, only a listing. There also is not a discussion which specifically covers the effects of the project upon these species. This data must be added and fully developed to make this EIR complete. These species should be monitored and protected (by reduced grazing pressure, irrigation, and/or fencing where feasible).

27 Page 10-27. Pre-Project Environmental Setting. 2nd paragraph. The statement that no surveys or inventories exist that document the groundwater dependent vegetation in the pre-project period, but that relatively good records exist in the bajadas and wet areas is highly suspect. Is the information for groundwater-dependent vegetation too embarrassing to Los Angeles to publish it and use it in this EIR? We find this omission to be unsatisfactory and a deficiency which should be corrected by the addition of this information to complete the data set.

28 Page 10-27 and 28. In the 3rd paragraph, (3) and in the 2nd paragraph it is noted that EIP conducted field surveys. However, on page 10-47 it is stated in the end of the next to the last paragraph that EIP made no field surveys!

29 Page 10-33. Top paragraph. The flow in Hines Spring certainly did not resume when pumping ceased.

30 Page 10-47. 2nd paragraph. The same general comments apply to the 1970-1990 period as to the pre-project period as noted for page 10-27, 2nd paragraph.

Page 10-53. Impact 10-8. It is understood that the document which records the transfer of lands between the BLM and Los Angeles mandates that the public will be provided access to the reservoir areas, not may be.

Page 10-57. Groundwater Pumping -- Lowering of Water Table 1970-1990. 1015 acres, about 1.6 square miles, is a pitifully small figure. Did the County staff agree with this figure?

Page 10-59. Impact 10-13. Map showing the 3 acres to be mitigated is on Figure 10-8I, not 10-8F.

Page 10-59. Groundwater Pumping -- Lowering of Water Table -- Agreement. Your reference to "pages 10-64" does not seem to apply.

Pages 10-60 and 61. Fish Springs and Big and Little Blackrock Springs. The areas that used to be fed by these springs has suffered from pumping to supply the fish hatcheries with a reliable source of water. We urge that the runoff from both hatcheries be spread to the adjacent lower lands to simulate the supply these springs used to give them. Since you are not pumping at these two locations for export but rather for in-valley uses some good to the areas should be realized before the water runs into the river (fish Springs) or into the aqueduct (Black Rock) for eventual use outside the Valley.

Page 10-61. Top of page. Map showing Hines spring area is on Figure 10-8H, not 10-8G.

Page 10-62. Mitigation Measures. Raising fish is no mitigation for loss of many acres of vegetation! Some of these fish are even taken out of the Valley, and that's certainly no mitigation for us.

Hines Spring should be restored in and for its own right. In general, supplying surface water to rehabilitate a former spring will never re-establish the spring nor its original value. If you run a pump at Hines Spring it permanently eliminates the spring. The water table should be allowed to rise to the point where it will flow naturally again. Then the native species naturally occurring will eventually return.

Page 10-64. Mitigation Measures 10-17. To say that the Lower Owens River Project mitigates these abandoned acres is dodging the issue. First, these areas should have standing in their own right. They were once wet meadows and pastures and they could be again if the City supplied them with water. Second, the Lower Owens River Project was conceived to be a beneficial project for its own reasons, not as a potential for mitigation of all the Valleys' ills. To say so is to pervert the original issue of the pro-

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ject and to denigrate the importance of the areas that should be restored for their own sake.

Page 10-69. Mitigation Measures 10-20. Same comments as above in reference to the Lower Owens River Project.

Overall Valley-wide Mitigation. It is ridiculous to assert that the Agreement itself is a mitigation -- for what specifically. Only actions are mitigation, and for specific wrongs to specific sites. Quit patting yourself on the back!

#### 11. WILDLIFE.

The general anecdotal discussions are dismal -- totally unscientific, and with much information not necessary to an EIR, although fun to read. To see a good wildlife report see the Anheuser Bush<sup>6</sup> Cabin Bar DEIR.

Page 11-4. INTRODUCTION. Third line in 2nd paragraph, .....October (what year) to June 1974.....

Page 11-15. Top paragraph. The Acorn Woodpecker seems to be at least a summer resident in Oak Creek at the Fish Hatchery. Nuttall's woodpecker is commonly seen and is a year-round resident around Lone Pine. Next to last paragraph should mention that the American Crow is a summer resident in the Valley towns.

Page 11-15. 2nd paragraph. Permanent residents usually means year-round. If so, most of the listed species are summer residents only.

Page 11-16. Mammals. Why mention *Perissodactyla*? Why not also say that you are not discussing cattle too?

Page 11-21. 2nd paragraph. Bear were also a nuisance in Lone Pine recently.

Page 11-32. Under Songbirds. Since the Yellow-billed cuckoo is listed as an endangered species and it has been known to breed on Big Pine and Lone Pine Creeks, any riparian burning in creeks with dense willow and cottonwood forest community must cease to protect the breeding habitat of this nearly extinct species.

Page 11-41. 4th paragraph. Here we go again allocating mitigation to the Lower Owens River Project when restored wetlands, ponds, springs, etc. would do much more to create good wildlife habitat than the single River Project which was originally proposed only as a fishing enhancement.

## 13. ENERGY.

Page 13-6. Energy Production Due to Pumping -- 1970-1990. In the 1st paragraph under Impact 13-1, the third sentence reads, in part: "Water pumped from this region, along with some surface water diversions, flows only through the second Los Angeles Aqueduct,.....". Isn't modern water engineering amazing! How can the City in all of its technical glory keep separated in the aqueduct and in the Haiwee Reservoirs any of the waters carried in the 2nd aqueduct?!

## 14. LAND USE AND ECONOMIC DEVELOPMENT.

Page 14-3. Under Ranch Leases. It is noted that the City leases land only to non-polluting users, and yet seems to consider livestock leases to be within this parameter. However, in many parts of the State, ranchers must dike land areas in which cattle gather so that runoff from areas where cattle gather will be collected so that it can be treated before it is released into the general environment. Needless to say, there are many instances in which considerable pollution from livestock is entering the City's water supply (Giardia too). On pages 9-84 and 9-87 you discuss WATER QUALITY and cite bacterial contamination. It is suspected that contamination of stream water by livestock was one of the reasons town water supplies were gradually changed to pumped sources. Cattle have a way of standing in the water supply when they drink and defecating into otherwise clear streams. Maybe it's time to clean up your act and keep cattle out of your water source which you praise as being so pure!

Farther along in the same paragraph (Ranch Leases) you mention that ".....and off-road vehicles are prohibited (except on existing roads and trails.)" This provision certainly must not be being enforced as motor bikes are seen all over the Valley without apparent restriction. In a large area southwest of Independence motor bikes are used almost daily with much noise and dust pollution to nearby residents. In the Alabama Hills, motor bikes and off-road vehicles have made a road through the willows in Ruiz Creek -- absolute devastation -- and have scarred creek banks and adjacent hillsides. These roads and trails were not there 10 years ago. It does little good for you to announce that you have a policy if you don't enforce it.

In the last paragraph, page 14-3, you mention "controlled burning". This is a joke. Nearly every controlled burn conducted in the Valley on

City lands gets out of control. Several have been just north of Independence, one on Lone Pine Creek, and the worst burned about a thousand acres of beautiful riparian forest and wetlands on Hogback Creek. This area could well have been a nesting site for the endangered Yellow-billed cuckoo as it frequents dense riparian woodland habitat and has been reported in the Valley (page 11-32). Also the lessee has completely devastated the confluence area of the north and south forks of Lubken Creek. Repeated burning and brush cutting has altered an extensive riparian area to what he intends to alter to a wet meadow. This should be stopped so that the area can return to its natural state, riparian wood- and brushlands. We know that ranching is an important activity on City lands in the Valley, but there are other values that are also important and ranching shouldn't completely dominate the environment particularly on public lands on which the governmental agency, the City in this instance, has a responsibility to care for all aspects of the ecology.

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Page 14-4. Table 14-1. Land ownership would be far more meaningful if you used the Owens River watershed as the base instead of the entire County. Please generate another supplemental Table. Then the City ownership would be a large percentage instead of only 3.8%. This DEIR should relate to the subject area of impact not the entire County. The percentages in the entire County are irrelevant.

Page 14-5. Commercial Leases. If you are sensitive to the economic stability and well-being of this Valley you should make commercial leases for at least 15 years so as to encourage better investments. We agree with your statement on the next page that says "Los Angeles land ownership and management practices serve to restrict development in the Owens Valley ....." For shame!

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Page 14-8. Table 14-2. Same general comment as for Table 14-1. These acreages and percentages are very misleading. Also, the "Vacant Land Area" is mostly, if not all, "used" by the BLM.

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Page 14-9. Figure 14-1. Why is Mono County included? This DEIR is about the Owens River watershed, not Mono County. Please supply a supplemental Figure to reflect this change.

Page 14-11. Table 14-3. Same comment as for Tables 14-1 and -2.

Page 14-12. Figure 14-2. Same comment as for Figure 14-1.

Page 14-13. Figure 14-3. Again use only Owens River watershed area. Also, what does the top line connecting diamonds represent, and why the drop by 1970 when the other lines do not drop as much if at all?

Page 14-16. Figure 14-4. Again why include Mono County?

Page 14-18. Ranch Leases -- 1970 to 1990. Impact 14-5. In the 2nd paragraph it is noted that the terms of the ranchers' leases were reduced from 5 to 1, 2, and 3 years. Why was this? What did the ranchers do that was so wrong? Did you use this as a threat to the ranchers to make them "behave"?! You say as a response to Inyo County's litigation filed against the City, but the ranchers didn't file the action! Just mean petulance on the City's part.

Mitigation Measure. 14-5. If you want to atone for this make the leases 10 - 15 years. And the ranchers may feel that they have more of a stake in the well-being of the forage.

Under Ranch Leases - Agreement. Increase the lease period to 10 - 15 years.

Under Commercial Leases -- Agreement. Increase the period to 10 - 15 years.

Page 14-21. Figure 14-5. Same comment as for Figure 14-4.

Page 14-22. Figure 14-6. Same comment as for Figure 14-3.

Page 14-23. Table 14-4. Here is a good table. Thank you.

## 15. CULTURAL AND HISTORICAL RESOURCES.

Page 15-3. PREHISTORY. 2nd line. How were petroglyphs "recovered"? Or is this supposed to be "discovered"?

## 16. ANCILLIARY FACILITIES.

Page 16-18. Under Bishop Area. Last sentence, 1st paragraph indicates that new (as well as old) wells are to be located near creeks and ditches. Of course! All the better to conduct the pumped water directly into the aqueduct.!!

Page 16-35. Under Impact 16-12. The last sentence states that: "The nearest groundwater-dependent vegetation to this site is over one mile away". This is not true. Within a few hundred feet of the new well site are Water birch, Coffeeberry, Willows, Cottonwood, a Yellow pine, and some Black locust.

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## Page 16-41. Section 16.4. GROUNDWATER PUMPING ON THE BISHOP CONE.

This entire section seems to avoid the admission that molecules of pumped water do get into the aqueduct in spite of the fact that "Los Angeles is precluded from exporting groundwater from.....the Bishop Cone". We realize that one could adopt a scenario that, in a wet year, no groundwater would be pumped and the Bishop Cone would receive water only from Bishop Creek and that any excess would run into the aqueduct. Then in a moderate year some groundwater would be pumped to make up for a decreased Bishop Creek and still runoff would get into the aqueduct. If in successive dry years, such as now, more water has to be pumped to supply the Bishop Cone with the proper amount to adequately supply Los Angeles-owned lands, still some which is excess to the needs gets into the aqueduct. Actually the more pumped the more stays in Bishop Creek, all the better for the riparian vegetation and fish, but finally it becomes undesirable to pump more when pumping begins to adversely affect vegetation and private wells near the City wells.

But nowhere in all the City's discussion is this whole subject openly covered so that everyone fully understands what the City is doing, what the true objectives are, how the water balance exists, and that the City does in fact export pumped groundwater. Your veiled discussion causes us to be suspect of other parts of the DEIR in which good faith full disclosure is imperative so that the public can really rely upon your document to "lay it all out on the table".

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## 17. CEQA CONSIDERATIONS

## Page 17-2. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS.

Add the following to this section:

1. Vegetation is unlikely ever to return to the pre-project condition.
2. Economic development normal to other areas is not likely ever to occur due to the Valley's commitment to water storage and delivery to L.A.
3. The entire valley is likely committed forever to ranching and related agricultural activities.
4. The Owens Lake is unlikely ever to hold significant amounts of water for long.



We would like to take this opportunity to offer an observation which puts the City in good standing with those who enjoy the Valley's undeveloped condition. If it were not for the City's water gathering activities this past 75 years it is quite likely that this area would be heavily developed and all privately owned (except possibly for the bajadas). We appreciate the extent to which it is a "wild" area and, although not pristine, is better environmentally than the San Joaquin Valley.

Page 17-5 and 6. Under Land Management. It is disclosed that the City has a "grazing management program." The five elements listed at the top of page 17-6 are impressive. We would add three more:

- o The issuance of new or renewed grazing permits will be subject to the CEQA process with full public participation.

- o Grazing leases shall be for a period of at least 10 years.

- o The City, as a public agency, recognizes its legal obligation to fulfill its responsibilities to provide full environmental review of all its land uses, especially the heavily impacting use of grazing. An EIR will be prepared to explain and justify the entire general program.

The City's lands are not "private" as its signs proclaim but public -- the City is a governmental agency and fully obligated to comply with State environmental law in this regard.

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## VOLUME II

Page B-10. Line 22. What is the purpose of this paragraph? Is it an escape clause for inaction? This needs to be rewritten and expanded.

Page B-17,18. Line 28. Something needs to be added between the last word in line 28 "changes" and the next part-word "tation" in line 1, probably "in vege-".

Page B-19. Lines 6-10. A change from mixed meadow grassland to a salt-grass meadow would be considered a significant and adverse.

Line 23. 12 months is too long. Six months should be plenty, particularly if you have to go through a dispute resolution time frame too.

Page B-20,21. Line 28 to land 2. We would consider a change from irrigated pasture to alfalfa monoculture to be significant and adverse.

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Page B-21. Lines 15-18. Doesn't the Standing Committee need to get involved here as in the next paragraph?

Page B-26. Last paragraph. The provision that the City can unilaterally turn a pump back on (or do anything else) is unacceptable. It is completely inconsistent with the goals of the Agreement which advocate cooperative management by both parties with the built-in safeguards this provides. Unilaterally watering a monitoring site could destroy its integrity and usefulness. This provision must be deleted from the Agreement and proposed project in any form.

Page B-28. Line 19. This unilateral revision and implementation leaves the County out of the picture. Consultation with the County would be better and changes such as in 5 should also receive County's approval, not just the opportunity to comment before implementation.

Page B-39. For the County to contribute any funds towards the construction, operation, or maintenance of a pumpback station is totally unacceptable. The Owens River is essentially dry solely because of the City's water gathering activities -- the County had absolutely nothing to do with the River's present condition. Since by a previous court order the City must not allow water to run into the lakebed, the pumpback should be entirely the City's obligation.

Page B-48. E. Then on

Page B-50. G. Where is Section F? Also, Park and Environmental Assistance to City of Bishop should be capital letters.

Page B-50. RELEASE OF CITY-OWNED LANDS. No wetlands, meadows, or pastures should be released for commercial or residential development. These lands are unique in a desert environment. Plenty of already disturbed, dry or filled lands are available for release.

Page B-58,59. Line 27. Change (Section I) to (Section II, Article I).

Line 28. Change (Section II) to (Section II, Article II).

Line 1. Change (Section V.C) to (Section II, Article V\_B).

Page 61. Line 24. Who is "either party?" Ambiguous -- needs clarification.

The Titles of Sections XXI, XXVIII, XXIX, XXX, XXXI, and XXXII should all be in capital letters.

## THE GREEN BOOK

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Page -i- Fourth line from top. The quotation comes from Section III.E. of the Agreement, not Section I.E.

Page -ii- We cannot find the quotation at the bottom of the page.

Page -1- I. VEGETATION MANAGEMENT 1st paragraph. Does the Standing Committee review and approve determinations, decisions or actions of the Technical Group?

Page -19- Top paragraph. Don't the Technical Group and the Standing Committee play any part in this decision to reduce irrigation water?

Page -14- 3. Type D Vegetation. All riparian burning must stop so that your monitoring procedures can be effective. How can you determine water deficiency if the vegetation is all chewed off?

Page -24- Subarticle V. Riparian burning and overgrazing must stop.

Page -28- Middle of the 1st paragraph. 12 months is too long. Six months would be better.

Page -29- 2nd paragraph. Compensatory mitigation is unacceptable. Mitigation to be meaningful must be at the site which has been adversely affected. Under subsection b., who pays for the consultant?

Page -46- 3rd paragraph. Can't find 1.C.2. Do you mean Table 1.A on page -6-?

Page -77- G. Projecting Seasonal Water Balance for Plant Available Soil Water and Transpiration Requirements. Until all these highly technical procedures are tested and proven over several years of use perhaps it would be well to rely on "safe yield" as a backup! We so recommend.

## FINAL COMMENTS AND RECOMMENDATIONS

The "no action" alternative required be analyzed by CEQA is, in this case, the "No Project" Alternative which means analyzing the environmental conditions which existed prior to the operation of the 2nd barrel. As stated elsewhere, this is very poorly done with virtually no documentation of those conditions and the assertion that scientific evaluation of what documentation there is is interpreted differently by qualified scientists. This appears to be used as an excuse to offer virtually nothing of real

value and to sidestep what information is available because it would be too damaging to the City and require too much mitigation.

67 The other alternatives offered are not really alternatives to the water gathering and transmission process; they are only variations of the proposed project. True alternatives would present and analyze in detail the advantages and disadvantages of other sources of water, such as desalinization, reclamation, conservation, no growth, etc. These are touched upon but not analyzed. This Chapter is inadequate.

68 The mitigation proposals do not really correct the overall environmental damage to the Valley. Alfalfa fields, woodlots, selling land to the County and Bishop, Lone Pine Sports Complex, Eastern California Museum, etc. may be compensatory mitigation but they do little, if anything, to correct the basic damage of drying the Valley. The City, by this document, does not intend to rewater the Valley to the 1970 conditions but only promises that it won't get worse than it was in 1984-1987 after the damage was done. This is not truly mitigation and the City can only absolve itself of censure for presenting another inadequate EIR by preparing a statement of overriding considerations in which the City clearly identifies the damages which it does not intend to correct and therein supports its non-action. It is inconceivable that the County could otherwise let the City get away with ruining the Valley and not require it to correct the deficiencies as any other corporation or business that has offended the environment would have to do. This correction would include restoration of dried up springs and wetlands, rewatering dried up creeks and the River, restoration of meadows and wet pastures, small lakes, ponds, and seeps, etc., etc.

69 In many places it is stated that loss of riparian areas, meadows, meanders, lakes, ponds, etc. has occurred and yet there are few figures to show the actual acreage. Not presenting the actual figures makes it easier for the public to accept rewatering the Lower Owens River as an overall mitigation for the loss of all the little sites throughout the Valley. This is misleading and deceptive and must be corrected. We must have these figures to get a true picture of what needs to be done or what we have actually lost. The Lower Owens River Project can't mitigate for all the Valley's losses and never was originally intended to do so when first suggested as a project.


No where in the DEIR is rewatering the Owens River Gorge mentioned as a mitigation project. Since it is within the shed of the Owens River it would be proper to include it. This needs to be added in the final EIR.

Much has been made of the severe dust problem created when South winds blow over the dried up Owens Lake bed and this is not to be minimized. But those of us in the South end of the Valley are also subjected to a severe dust problem from North winds. The land is so bare and dry that the wind whips dust off the ground into the air where it is transported for many miles. In Chapter 12, Air Quality, a pitifully small number of acres will be treated to restore vegetation but tens of thousands of acres remain with no comment at all about the problem or its overall resolution. Rewatering and meaningful reduction in grazing pressure would help considerably. This subject needs to be added to this Chapter to complete the proposed action to mitigate the widespread Valley dust problem.

If all of the individual comments and general comments and suggestions are followed there will be enough new data and information not previously presented to the public that it is clear that another period of public review of the new data will be necessary. This entire DEIR would not have to be reissued but only the new information and significant revisions. This could probably be done, reviewed, and the final EIR published so that it could have the 30-day legal review period and still make the court date of September 28. If not, another extension may be necessary.

We appreciate your having provided us with the opportunity to review and comment upon this DEIR and the time extension within which to do so. We look forward to the next review with considerable interest.

Sincerely,

  
Vincent Yoder, Conservation Chair  
Bristlecone Chapter  
California Native Plant Society



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## RESPONSES TO COMMENTS

### LETTER C11

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#### RESPONSE C11-1

Please refer to response to master comment S-1 regarding the base of comparison.

#### RESPONSE C11-2

Many of the impacts to the environment in Owens Valley are the result of the construction and operation of the first aqueduct, and are therefore beyond the scope of this Draft EIR. For additional discussion of direct and cumulative impacts, please refer to response to master comment MT-5.

#### RESPONSE C11-3

Page 1-1, the last sentence, has been changed to read, ". . . Inyo National Forest, except that the Inyo Mountains south of Pat Keyes Canyon is administered by the Bureau of Land Management." Text correction is included in Chapter 3, Revisions to the Agreement and Draft EIR.

#### RESPONSE C11-4

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

#### RESPONSE C11-5

Water meters were installed in various Owens Valley communities between 1976 and 1979. Metering contributed to a reduction in water use. The data point for 1967 was inadvertently omitted from Figure 4-10; however, this does not alter the trend of the curve.

RESPONSE C11-6

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

RESPONSE C11-7

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

RESPONSE C11-8

Members of the Technical Group include technical staff from LADWP and the Inyo County Water Department. For a description of the Technical Group see Section II, pages B-8 and B-9 of the Agreement. A wide range of technical disciplines is represented in the Technical Group including botany; hydrology; plant ecology; range, fish and wildlife management; and civil engineering. The technical requirements for the Technical Group may vary depending on the issues to be considered; expertise would be supplemented as needed. Also, please refer to response to master comment PD-7.

RESPONSE C11-9

The statement pertaining to lands supplied with water can be clarified by referring to the Agreement, Section IV.A, page B-20, beginning on line 20; and in particular on line 7 of page B-21.

RESPONSE C11-10

The report authors regret the inadvertent omission of wood lots from the list of E/M projects in Table 5-3.

RESPONSE C11-11

For a discussion of the release of Los Angeles-owned lands, please refer to response to master comment PD-15.



RESPONSE C11-12

Comment noted; however, the Lower Owens River Project is addressed in the individual discussions of the alternatives.

RESPONSE C11-13

Comment noted. No further response is required.

RESPONSE C11-14

Comment noted. No further response is required.

RESPONSE C11-15

The units are in acre-feet per year.

RESPONSE C11-16

These figures are annual average for the period shown.

RESPONSE C11-17

The units shown in the column heading (gpd/ft) are correct. The time period mentioned in Footnote 2 should be "day," not "minute."

RESPONSE C11-18

Units of storativity are volume per unit area per unit change in head; or, volume per volume, which is dimensionless as long as consistent units are applied.

RESPONSE C11-19

Flow data for Reinhackle Spring are available for review at LADWP's Bishop office.

RESPONSE C11-20

Tinemaha Reservoir serves as a seasonal storage reservoir and not a settling basin. The implications on the overall Los Angeles aqueduct system from the removal of Tinemaha Reservoir are unknown at this time, and would be the subject of future study.

RESPONSE C11-21

The figures presented are averages for the time period indicated, in thousands of acre-feet.

RESPONSE C11-22

Well numbers 224 and 339 are deep observation wells and are not pump-equipped.

RESPONSE C11-23

The groundwater budget data presented in Table 9-11 was prepared by USGS, and was the most recent computation of a groundwater budget by USGS. A conveyance gain results from groundwater inflow to a canal or ditch.

RESPONSE C11-24

The presence of coliform or streptococci bacteria in Los Angeles' raw water supplies in the levels measured do not constitute a significant threat to public health because conventional water treatment processes are effective in removing pathogens from the water supply; therefore, no mitigation is required.

RESPONSE C11-25

The text in paragraph 4, page 10-3, is corrected to read "(mean January low, 21 degrees F)". In the last paragraph, page 10-3, the statement is corrected to read "median (4.3 inches)". The median is not the half-way point on the graph, it represents the figure that has an equal number of observations above and below it. In this case the median of 4.3 inches means that half the years recorded greater than 4.3 inches and half recorded less than 4.3 inches.

RESPONSE C11-26

Please refer to the responses to master comments VE-6 concerning plant species of concern and PD-5 concerning habitats of concern, primarily seeps, and springs.

RESPONSE C11-27

Please refer to response to master comment EA-1 concerning pre-project conditions.

RESPONSE C11-28

EIP personnel made several field visits to Owens Valley during the preparation of the Draft EIR. These surveys were intended to acquaint the writers with the vegetation of the valley. The sentence on page 10-47 does not state that EIP made no field surveys, it says that no original scientific field studies (by EIP personnel) were done as part of the EIR, and this is true.

RESPONSE C11-29

A small flow was observed at Hines Spring at various periods during the 1960s and 1980s.

RESPONSE C11-30

Please refer to response to master comment EA-1.

RESPONSE C11-31

Comment noted. No further response is required.

RESPONSE C11-32

Please refer to responses to master comments VE-2, VE-3 and MT-8.

RESPONSE C11-33

This is correct, the reference to Figure 10-8F on page 10-59 is changed to read "Figure 10-8I".

RESPONSE C11-34

The water provided from the hatchery is commingled with other water and is used both for in-valley uses and export to Los Angeles. Please refer to responses to master comments MT-3 and MT-8 for a discussion of mitigation measures. Los Angeles has not agreed to implement the suggested mitigation.

RESPONSE C11-35

This is correct, the reference on page 10-61 to Figure 10-8G is changed to read "Figure 10-8H".

RESPONSE C11-36

Comment noted. Please refer to response to master comment MT-3 for an elaboration of the various types of mitigation allowed under CEQA.

RESPONSE C11-37

Comment noted. No further response is required.

RESPONSE C11-38

Please refer to response to master comment MT-3 for a discussion of mitigation allowed under CEQA, and response to master comment MT-6 regarding the Lower Owens River Project.

RESPONSE C11-39

Please refer to response to comment C11-38 above.

RESPONSE C11-40

Comment noted. No further response is required.

RESPONSE C11-41

The Cabin Bar EIR covers a small area and a project that has yet to be implemented; therefore, it should be in a different format than this EIR.

RESPONSES C11-42 to C11-44

Text corrections are noted, and included in Chapter 3, Revisions to the Agreement and Draft EIR.

RESPONSE C11-45

Comment noted. Perissodactyla was mentioned to indicate that there is an eighth order of mammals in the valley.

RESPONSE C11-46

Comment noted. Riparian burning in creeks with dense willow and cottonwood forest is not an approved LADWP policy.

RESPONSE C11-47

The Lower Owens River Project is acceptable mitigation. See response to master comment MT-6. Also see 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 C11-48

Comment noted. No further response is required.

RESPONSE C11-49

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

RESPONSE C11-50

Comment noted. No further response is required.

RESPONSE C11-51

Comment noted. No further response is required.

RESPONSE C11-52

Comment noted. No further response is required.

RESPONSE C11-53

Data for Inyo County alone were not available prior to 1968; this is why the data for Inyo and Mono Counties are combined in the Draft EIR.

RESPONSE C11-54

Data for Inyo and Mono Counties were combined prior to 1968 and not available separately. 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 C11-55

Comment noted. No further response is required.

RESPONSE C11-56

Comment noted. No further response is required.

RESPONSE C11-57

No changes are proposed in LADWP's lease program (agricultural or commercial) as part of the proposed project. Please refer to response to master comment PD-14 for a discussion of LADWP land management practices. Comment noted. No further response is required.

RESPONSE C11-58

No changes are proposed in LADWP's lease program (agricultural or commercial) as part of the proposed project. Comment noted. No further response is required.

RESPONSE C11-59

Correct. Chapter 15, page 15-3, second line "recovered" is changed to "discovered".

RESPONSE C11-60

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 C11-61

The species cited in this comment are riparian (typically found along a watercourse) and not groundwater dependent. The statement in Chapter 16, page 16-35, under Impact 16-12 of the Draft EIR is correct. Also see response C2-1 in letter C-2.

RESPONSE C11-62

Please refer to response to master comment PD-13 regarding groundwater pumping on the Bishop Cone; and WA-3 for a discussion of commingling of water in the aqueduct system.

RESPONSE C11-63

This comment is a personal opinion. Comment noted. No further response is required.

RESPONSE C11-64

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 C11-65

This comment expresses personal opinions on the merits of the project and does not relate to the content of the Draft EIR. Comments noted. Regarding vegetation change refer to response to master comments PD-6 and VE-1; regarding County funds please see response to master comment

PD-11; and for discussion of release of Los Angeles-owned land please refer to response to master comment PD-15.

RESPONSE C11-66

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 C11-67

Please refer to response to master comment AL-1 for discussion of alternatives.

RESPONSE C11-68

Please refer to responses to master comments MT-1, pertaining to adequacy of past mitigation, MT-3 for discussion pertaining to mitigation under CEQA, and MT-8 for discussion of mitigation options.

RESPONSE C11-69

Please refer to responses to master comments EA-1, pertaining to pre-project conditions; MT-3, related to mitigation under CEQA; and MT-6 for a discussion of the Lower Owens River Project.

RESPONSE C11-70

Since publication of the Draft EIR in September 1990, a malfunction in the Los Angeles aqueduct system occurred. Los Angeles, in coordination with State Fish and Game, has initiated rewatering of the Owens River Gorge below the Upper Gorge powerhouse.

RESPONSE C11-71

Please refer to response to master comment AQ-1 for discussion of Owens Dry Lake. Livestock grazing is not part of the project. See response to master comment PD-14.

RESPONSE C11-72

Comment noted. No further response is required.



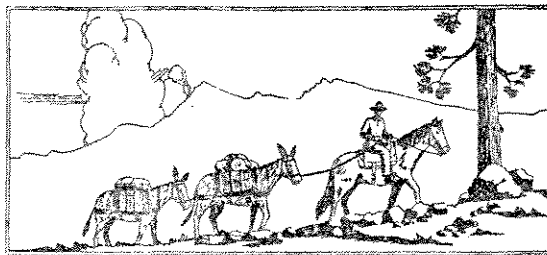
**Letter C12**

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**High Sierra Packer's Association, Eastern Unit**



INYO COUNTY  
BISHOP, CALIFORNIA



MONO COUNTY  
BRIDGEPORT, CALIFORNIA

EASTERN UNIT

## HIGH SIERRA PACKERS' ASSOCIATION

590 NORTH MAIN STREET, BISHOP, CALIFORNIA 93514

RECEIVED

JAN 28 1991

EIP ASSOCIATES  
SAN FRANCISCO, CA.

January 24, 1991  
John Davis,  
Senior Vice President  
EIP Associates  
150 Spear St. Ste 1500  
San Francisco, CA 94105

Dear Mr. Davis,

This letter is in response to the Draft Environmental Impact Report for the Long Term Groundwater Management Plan. I am writing on behalf of the Board of Directors, Officers, and Membership of the Eastern High Sierra Packers' Association.

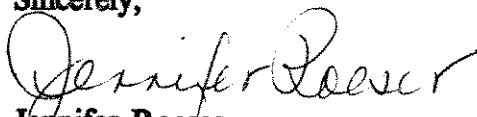
All of our members hold D.W. and P. leases in the Owens Valley utilized as winter grazing during winter and spring months. These leases are vital to our respective operations and directly affect our economic value.

With this in mind, I will comment exclusively on the issue of grazing. It is the consensus of our Association that the D.W. and P.:

1. Continue to utilize the existing grazing management program now in effect, and
2. Constantly and continually involve the lease holder's in any discussions, negotiations, or decisions dealing with the involved leases.

Thank you for the opportunity to comment, and we look forward to further implementation and involvement.

Sincerely,



Jennifer Roeser,  
Executive Secretary

Eastern High Sierra Packers' Assoc.



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**RESPONSES TO COMMENTS**  
**LETTER C12**

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**RESPONSE C12-1**

Comment noted. No further response is required.



**Letter C13**

**Sierra Club, Toiyabe Chapter**







# SIERRA CLUB

Toiyabe Chapter — Nevada and Eastern California  
P.O. Box 8096, Reno, Nevada 89507

RECEIVED  
JAN 28 1991  
STANDARD

Drawer D  
Lone Pine, CA 93545  
Jan. 24, 1991

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

Dear Mr. Davis,

The Toiyabe Chapter of the Sierra Club has studied the Draft Environmental Impact Report for the Inyo County/Los Angeles Long Term Groundwater Management Plan and submits the enclosed comments.

We look forward to our comments receiving careful review and we anticipate the Final EIR will show the necessary corrections and additions. For the Sierra Club to fully support the Final EIR and Agreement substantive changes must occur.

Thankyou for the opportunity to comment and for the extension of the comment period.

Sincerely,

Michael Prather  
Chair- Toiyabe Chapter  
Sierra Club

The Toiyabe Chapter of the Sierra Club wishes to make the following comments regarding the Inyo County/Los Angeles Long Term Groundwater Management Plan Draft EIR.

1 SUMMARY:

Areas of Controversy

The DEIR is inadequate in that water conservation calling for mandatory rationing immediately in Los Angeles was demanded by large numbers of the public during the public involvement periods and this demand is not mentioned in this section of the Summary. Los Angeles is seeking to expand its water gathering and yet has only voluntary conservation at the present time.

2 Revegetation success is a major concern with the public. In addition, the numbers of acres to be revegetated is questioned by many in the public. Little discussion of either of these points is provided that allows the reader to understand the concerns raised by the public. What will happen if revegetation is unsuccessful? Why is only a fraction of the damaged vegetation area receiving treatment?

3 No mention is shown of agency and government controversy raised during review. Were there no controversial issues raised by CADFG, Mono County, APCD, LRWQCB etc.?

Los Angeles's water gathering operation includes both Inyo and Mono County. Many in the public demanded that Inyo's portion of the operation cannot be separated from what happens in Mono County. No mention of this important question appears in the DIER Summary.

4 CHAPTER 4

p4-7 This graphic should display ONLY Inyo County's irrigated acres that have been lost. Mono County has been excluded from the DEIR. The reader must be able to clearly see that nearly 50% of Inyo County's irrigated acres have been lost since 1970. Current irrigated acreage is about 1/7 of that which existed in the 1920's.

p4-10 No explanation is given for the dramatic decline in water use in the towns beginning around 1975-76.

5 CHAPTER 5

p5-3 The 1984-87 inventory of vegetation was taxonomic or categorical and not qualitative. Detecting change without quantitative baseline data is a weakness. Scientifically, how can change be detected?

p5-4 The worst-case condition should be changed to 5 or more year as a result of the lesson learned from the current drought.

p5-4 Much of the Lower Owens River riparian vegetation is supplied by springs and seeps. This area is labeled Type E, or Blue on the maps meaning it is supplied water. Greater protection would result from Type D designation and would result in a more correct labeling.

6 p5-5 Change within type can be significant to sensitive plant and animal species--for example change from sedge marsh to

-- PAGE 2 --

salt marsh or change from salt cedar to riparian. This section must be supplemented with more protection in order to avoid significant impacts.

p5-5 Type E vegetation-- Conversion of native or irrigated pasture to alfalfa would result in a significant loss of wildlife. This must clearly be prohibited within Type E.

p5-5 Other Vegetation-- This section is not mentioned in the Agreement and should be added. The inventory of this vegetation must take place as part of the pre-project analysis and not occur in the future as the text describes. Without these critically important areas known the DEIR is inadequate.

p5-14/15 Hatchery wells should NOT be exempt from shut-off provisions. No alternatives are offered to the continuous pumping with its proven significant impacts on the environment i.e. loss of vegetation, and change in groundwater flow at Oak Creek due to Blackrock Hatchery. The 40,000 AF pumped per year for hatcheries represents nearly 50% of the in-valley pumped water use. Since 85% of the trout from Fish Springs goes to Mono County, these hatcheries are NOT mitigations for Inyo County.

p5-18 Environmental Projects--These projects appear discretionary and should be put under the joint management of the Technical Committee thus assuring their continuation. Some of these projects such as Calvert Slough etc. currently have no water in them and are virtually dead biologically.

p5-18,4 -- "...non-beneficial use" An analysis of the environmental benefits should be done and balanced against the impacts.

p5-19 Mill Pond-- This is NOT an environmental project. It is a recreational project.

Klondike Lake-- This lake has little benefit for nesting due to the disturbance by boaters.

Calvert Slough-- Currently dry and representing no real wildlife value.

Little Blackrock Spring-- Overgrown and not providing surface(pond) water as it did before it was destroyed. This site and others are examples of the inadequacy of relying on the application of surface water to correct for pumping damage.

Diaz Lake-- Primarily a winter and migration area--little use for water birds for breeding.

p5-23 The Lower Owens River Project should also provide for public participation in its design and management. This should include, but not be limited to Ducks Unlimited, the Owens Valley Warm Water Fishery Association, the Eastern Sierra Audubon Society, the California Native Plant Society and Sierra Club.

p5-24 Regarding salt cedar removal site priorities-- Sites along the shores of Owens lake such as Ash Creek, Cottonwood Creek, Bartlett Spring etc. should be added because of their value as wildlife habitat and the fact that salt cedar invaded these sites due to water releases from the aqueduct system.

p5-24 Releases of Land-- In an agreement with the expressed goal of prohibiting any damage to vegetation NO wetland (surface or sub-irrigated) areas should be released as a part of this agreement. Certainly there are alternate "dry" lands that

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can be substituted.

p5-27 Recreational Use--North and South Halwee Reservoirs should be opened for fishing use with no power boats allowed. South Halwee should be walk-in only since it receives a huge use by waterfowl in migration and winter. No hunting should be allowed since there are no sanctuaries of any kind in the Owens Valley.

## CHAPTER 6

p6-18 Implications of Owens Valley Alternatives--Increased export from the Owens Valley in the 1970's has been 42,000AF which represents 6.5% of Los Angeles's water demand. Even the worst voluntary conservation compliance by users in Los Angeles has saved that amount of water. Electricity generating capacity losses could be offset by the recent announcement by DWP Commissioner Michael Gage that DWP will be constructing a new geothermal unit at Coso. Mr. Gage's press release further states that the city currently has excess electrical generating capacity.

No alternative exists within the DEIR that would provide for the agreement with its environmental protections and benefits and yet no increased water export equal to the 6.5% mentioned on p6-18. Future electrical generating revenues from the new Coso geothermal plant could purchase MWD water. Water need would be reduced through conservation and existing Los Angeles policy while revenue increases from Coso geothermal would offset electrical revenue losses resulting from less water being exported from the Owens Valley.

## CHAPTER 7

p7-7, 9-16-- Mitigation Measures- "No mitigation measures are required for impacts to water resources:" This implies the authors put no value on water? Why have there been such disagreements over the worth of water in the past?

p7-8, 10-1-- Impacts and mitigation- Vegetation has been severely altered by water management practices of the city. Feast or famine water regimes since 1970 have significantly impacted riparian vegetation.

p7-9, 10-7-- Fluctuations in storage volumes HAVE significantly impacted vegetation by allowing the invasion of salt cedar and not allowing stable native vegetation colonization.

p7-11 and 7-12 As a mitigation for the destruction of the largest springs in the valley by the fish hatchery pumps, the hatchery tailwater should be used as flow-through systems of created wetlands and ponds. Fish in trade for wetland loss is not adequate compensation in kind and no longer agrees with the goals of the Water Management Plan's spirit and intent.

The Lower Owens River cannot be used as a "catch all" compensation for loss of springs, wells and wetlands. The Lower Owens River must serve as mitigation for the loss of the river itself. Using it to compensate for diverse marshes, seeps, springs, ponds and wells is insufficient. The river becomes a narrow green line in place of a varied wetland habitat system.

Re-water Tulare Swamp east of Thibaut and other areas in addition, PLUS develop the Lower Owens River.

Reinhackle Spring represents the last natural large spring in the entire southern Owens Valley. It must be protected from pumping pressure. New wells that could even POSSIBLY impact Reinhackle must not be drilled. The provision to provide surface water in the event of impacts on the spring due to pumping must be struck from the DEIR and Agreement. Seely Spring is already a hole in the ground with a pump pouring water into it; Seely is no longer a natural spring. Reinhackle represents the natural heritage of the Owens Valley. With the Independence springfield already destroyed and many of the wells and seeps south of it reduced significantly in flow, Reinhackle is a spot where citizens can see a natural spring flowing from the ground. It cannot be mitigated or compensated for so it must remain in its present state.

p7-17. 11-2-- Plans for monitoring and inventorying wildlife are not defined in the slightest way in the DEIR. What methods to date have been used and what is the data? The DEIR and Agreement contain much in regards to vegetation monitoring and specific future study, however there is an absence of similar commitment to wildlife values.

p7-22. 16-11-- Strike, "or provide water to avoid such decreases or changes." As stated above, Reinhackle Spring must never be allowed to become an artificially sustained system. It represents the last in the string of springs and flowing wells that extends to the north. Enhancing the wildlife values of Reinhackle Spring must be a mitigation. The spring represents a minute piece of the Owens Valley water heritage. Allowing the possibility of surface water to keep the vegetation alive still results in the death of the natural spring.

## CHAPTER 9

p9-5.3 References to Pleasant Valley Reservoir and Dam are 1953, 1954 and 1956. These dates should be in agreement with each other.

p9-35 Hatchery groundwater losses and resultant spring loss have been significant. The hatcheries should not be used as mitigation since the hatcheries were already in existence when the impacts occurred. Most of the fish are exported to Mono County.. The annual pumping for the hatcheries represents nearly 50% of the in-valley pumping. Additional mitigation is necessary.

Hatchery tailwater should be used to develop marshes and ponds for wildlife in a "flow-through" system that allows the water to then enter the aqueduct. These 20-30 acre wetlands would compensate, in part, for the hundreds of acres lost from groundwater pumping at the hatcheries and elsewhere in the Owens Valley as well as the loss of wetlands due to irrigation stoppage and reduction in operational spreading. The Lower Owens River compensates in quantity, but not necessarily quality. Much of the diversity and mosaic of wetlands have been lost with a resultant loss of wildlife.

p9-52 The Lower Owens River project is not clearly defined in such a manner that the reader can compare the compensatory mitigation with the impacts of water gathering.

Where were the wetlands (natural and manmade) that have been lost? What plant species predominated there? What wildlife species depended on the habitat? The Lower Owens River project is a narrow green line and cannot replace diversity and the mosaic of wetlands that existed before.

In addition, where are the ponds? What water regime will the project be provided with? What public participation will take place in planning the project and its management?

19

p-54,9-6 Operational spreading during above average rainfall years created seasonal wetlands of considerable size where many waterfowl of diverse species nested. Because of the reduction of operational spreading, these natural wetlands will be lost. Artificial replacment does not guarantee reduction of significant impact or compensation for loss.

The Lower Owens River project must be expanded to create more permanent as well as seasonal wetlands. The Lower Owens River is an obligation due Inyo County separate from the water agreement and this DEIR. Existing California Fish and Game Codes require water must continue below diversions for maintenance of fisheries. The main stem of the Owens River is required to be provided with water. It cannot be counted as a mitigation. Only wetland habitat separate from the main stem must be included as mitigation for loss of wetlands due to water gathering.

20

#### p9-58 Pumping

E/M wells are exempt from shutoff. Impacts of the E/M pumping should be clearly explained. The average cfs for the E/M wells is 15 while the average cfs for production wells is around 6. The reader must be able to evaluate the impacts in order to determine if the E/M projects do lessen impacts or compensate for losses.

p9-83 Groundwater Pumping- Surface water should NOT be applied to mitigate impacts to existing wetlands if this will lead to a permanent use of surface water and therefore create an artificially maintained environment. Pumping should first cease or be reduced rather than allowing the option of providing surface water.

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#### CHAPTER 10 VEGETATION

P-3, last paragraph- "median of 3.3 inches does not agree with Figure 10-1 on p10-4.

p10-21 Fish Slough Milk Vetch- Grazing, off-road-vehicles, burning and water gathering have impacted the population also.

22

p10-36 Type E- Irrigated lands classification is unclear. Do some of these lands receive surface water? Do these lands recieve water on a regular or irregular basis?

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p10-28,2 "There have been instances where habitat or vegetation has been altered at site specfic site..." This is possibly true, however extremely misleading. The "site-specific" locations were often complex and diverse springs and wetlands that contained the most varied and rich wildlife and plant species. Even compensating with greater quantity(aces) is not sufficient mitigation. Equal quality must be offered.

24

p10-41 The expansive seasonal pond system in the Tulare Swamp area must be added to the Lower Owens River project. This

wetland serves as a major water fowl production area in wet years and little effort besides the addition of water is needed to restore it.

Calvert Slough is a Los Angeles Environmental Project and yet has been dried up. This and other projects created unilaterally by Los Angeles should have guaranteed water. Little besides esthetics is gained otherwise.

p10-43 The Moffitt Ranch on Hogback Creek burned several years ago because of a DWP grazing leasee. This area must be restored since the range practices of the City of Los Angeles resulted in the loss. This was the one of only 2 sites in the Owens Valley where the Yellow-billed Cuckoo was found during surveys in the late 1970's.

p10-45 The Edward's Field should be enlarged to its traditional area to the north. In addition, the most southerly portion of the Edward's Field adjacent to Lone Pine Park should be carefully managed as a wildlife area where vegetation (trees and shrubs) are not removed. This site is possibly the richest riparian site currently found in the Lone Pine area.

Irrigation should be restored to the area immediately south of Highway 136 as it goes east from Highway 395. This field provides for grazing and has rich wildlife value during seasonal spreading.

Little Diaz Lake immediately east of Diaz Lake (across Highway 395 must be guaranteed seasonal water during spring and fall migration. Little shorebird habitat exists anywhere in the Owens Valley. It provides resting, feeding and nesting areas for many waterfowl and shorebirds.

p10-49 "the permanency of the decrease, change or effect" This is unnecessary since if any of these occur pumping must cease or be reduced or water management altered.

p10-51 Owens River-Agreement

Beyond the main stem, significant mitigation is necessary to compensate for wetland losses. However, little description of the project is provided resulting in an inability of the reader to judge whether the compensation is adequate. What kinds of habitat for waterfowl and shorebirds is provided? Is it significant? What monitoring will take place to evaluate if the mitigation is viable? Much expansion beyond the main stem of the Lower Owens River is necessary and a description of the projects must be provided for the public.

p10-52 Mill Pond is a recreation swimming pond and not a wildlife pond. Klondike Lake, due to intense boating use is not quality wildlife water and should be judged as such. It does receive some use for resting during winter and migration.

p10-52 Salt Cedar- Releases of water onto Owens Lake during wet year's has resulted in Salt Cedar spreading at Ash Creek, Carroll Creek and Cottonwood Creek. These areas should also become part of the eradication plan.

p10-53 South Halwee should become a non-hunting, walk-in refuge. North Halwee should become a fishing and non-boat area.

p10-57.4 "...approximately five percent of the overall area MAY have experienced impacts..." Elsewhere in the document the word DID is used instead of MAY.

31 p10-58 Mitigation Measure- "LADWP and Inyo County are developing..." In fact DWP has unilaterally cut down many of the dead willows and spread water with no initial notification of Inyo County. This type of unilateral action has occurred regularly and should be corrected by LADWP stating in the Agreement that it will without fail notify the Inyo County water Department of significant actions that it will be undertaking. Furthermore, LADWP must state for the public that it will fully comply with CEQA regarding grazing, mitigation, and other such actions similar to the Billie Lake work east of Independence.

32 p10-62 Big and Little Seely Spring- This spring is of little use to migrating shorebirds and water fowl due its size, habitat type and general manmade nature. Little thought has gone into the design of a truly significant habitat. What monitoring has been done to demonstrate its effectiveness?

The Hines Spring project should be enlarged to 40 acres in order to provide a habitat that has value for wildlife and is large enough to study. Little can be gained from artificially created sites of such inadequate size.

Reinhackle Spring must be left as an "intact" mitigation. It represents a natural water heritage that is nearly extinct from the Owens Valley or has been replaced by artificial environments. No new wells should be placed near it and no surface water should be provided that would begin the slow slide toward death of the native spring.

33 p10-64, 10-17 Mitigation Measures- Replacing the widespread meadow and riparian vegetation that previously existed with the narrow green line of the Lower Owens River is inadequate compensation. Wetland habitats like these support 90% of the wildlife in the valley. Also wetland habitats vary and must be studied in further detail. Comparisons must be made between what has been lost and what is proposed as compensation.

34 p10-70, para. 2- "Among the studies that will be conducted in the near future..." The Green Book on p117 para. 2 states. "This section lists the studies and projects that will be conducted or are being considered...". No where does it state WHICH of the studies WILL be conducted and which ones SHOULD be conducted. The public cannot respond to this.

p10-72, para. 3 The third step of "degree of significance" must be dropped because it opposes the goals of the Agreement which state that steps to protect the vegetation will begin immediately after steps 1. and 2.

p10-74,6- "...surface water application..." Application of surface water in such a manner as to create a permanent artificial environment is not acceptable as compensation for the damage to a presently existing and naturally occurring wetland habitat.

35 CHAPTER 11 WILDLIFE

As written this chapter is totally inadequate. From the initial claim of lack of ability to describe the pre-project to Appendix C species lists the reader is denied the accurate information that would enable a clear analysis of wildlife. The DEIR for the Cabin Bar Ranch property should be used as a model. My comments will stress mainly avian species, however parallels



can be drawn to other groups such as mammals.

p11-4 Background and History- Newspapers and Journals are cited for data and only the Wheeler Expedition of 1871 as a scientific citation. (No reference of current journals, other 19th century and early 20th century surveys and none with modern ornithologists or birdwatching enthusiasts i.e. Grinnell and Miller (1944). A.K. Fisher (Coville Expedition 1893), museum collections and local Audubon Society members.)

p11-5, para. 3- It can safely be assumed that these species of ducks didn't "appear" around the turn of the century, but have been here for thousands of years.

p11-2, 11.2 Pre-project Setting- Using LADWP and Inyo County records of land use which include irrigation, ponds, marshes, ditches etc. the past can accurately be re-created based on the use of similar habitat by species today. With the historical record that LADWP prides itself on and that everyone knows exists the pre-project setting can indeed be described.

p11-7, para. 2 Populations of current birds in relation to type of habitat and size of habitat can be used to define the percentage loss of individuals and species since the pre-project time. Many of the sensitive species listed later in the DEIR are habitat-obligates, that is dependent on wetlands. Since wetlands are the primary habitats that have been lost, descriptions of the degree of loss can be written.

As a generic comment, the wonderful, but often inaccurate natural history descriptions of bird species have questionable value in the DEIR unless this information is helpful in understanding impacts from pre-project until the present. In other words which species are dependent on specific habitats for feeding, nesting, resting, migration, wintering etc.

The status (occurrence) of many of the species of birds is filled with inaccuracies:

p11-8, para. 1- The common loon is not a game bird at all.

p11-10 The white-faced ibis is a regular fall and spring migrant in the valley and in historic times probably existed in greater numbers due the larger areas of wetlands.

p11-11 The red-shouldered hawk is uncommon and winters in the valley. It is an indicator of healthy riparian condition and could become a nester if the valley is restored to the proper condition.

p11-15 Nuttall's woodpecker is a common resident bird in riparian areas. The acorn woodpecker has a small resident population at the Mt. Whitney Fish Hatchery.

p11-16 Yellow-rumped warblers are migrants and winter residents in the valley. They are not residents. The vesper, chipping, white-crowned and Lincoln's sparrows are not permanent residents of the valley.

Eastern Sierra Audubon Society was not contacted for input into the DEIR.

p11-27, 11.3 Present Setting- "...no significant difference between present wildlife populations in the Owens Valley and pre-project populations" This contradicts Sec. 11-2 which states that there is insufficient data to describe the pre-project. How can this comparison be made by the author. The DEIR further claims that "...the lack of quantitative data for

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pre-project populations or habitat requirements prevents detailed comparisons." This is an excuse to keep from doing the work necessary. Certainly the habitat requirements would be the same and population can be accurately estimated. No attempt to do this has occurred.

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p11-29 Table 11-4 Too many inaccuracies to list. Please contact Tom and Jo Heindel, Box 400, Big Pine CA 93513 for expert local information.

42

p11-30 Snowy Plover- This species is a candidate for Federal listing and nests on Owens Lake. Has the Point Reyes Bird Observatory been contacted for data regarding this species? Are there impacts from LADWP actions, i.e. water releases?

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p11-31 All species on this page are riparian obligates and should be listed as such. Since the most critical habitat in the DEIR is wetland habitats special categories should be shown with their representative wildlife species. This portrayal more accurately displays the impacts both past and future.

p-11-32 Songbirds- The yellow-billed cuckoo site at Moffitt Ranch was burned in the early 1980's by a LADWP leasee. The value of this mature riparian habitat for the cuckoo may have been lost. The grazing practices of the LADWP have caused significant impacts on both plant and animal species throughout the valley. What restoration is planned for the Moffitt Ranch property to assist in the recovery of the yellow-billed cuckoo, one of the rarest birds in California? What monitoring has taken place on non-game species other than raptors? This data must be made available for the public.

p11-39 Impact "...no census data exists...to conclude the magnitude of the change..." This ducks the responsibility and possibility of defining the wildlife impacts of past and future practice by the LADWP. Land use patterns from the past such as irrigated acres, ditches, sumps, swamps, canals and other wetland habitats can be estimated. Using modern studies of species use of those habitats an estimate of wildlife impacts can be arrived at. For example if 75% of the mature riparian along canals, ditches and ponds has been lost then 75% of habitat-obligate species will have been eliminated from the valley.

In addition, this "lack of data" points out the management of wildlife values by the LADWP. No programs of restoration, censusing and monitoring are part of their management practices other than those dealing with large mammals(elk), some gamebirds(waterfowl and upland species) and raptors. No non-game management program appears in place. No where in the document are the management practices of the LADWP displayed. What evaluation and monitoring takes place where and when and by whom? The reader must know this to have confidence in the project proponet's claims and promises in the DEIR.

p11-41,para.2 "...as wildlife habitat, are expected to surpass in quality the effected wet areas..." How is this comparison of the compensation arrived at scientically? What studies have been done? How can the reader know if this claim is indeed true or not?

,para. 4 The Lower Owens River is to mitigate for reduction of wildlife populations that "may" have occurred within well fields and for the impacts to springs. With such a tremendous number of impacts being mitigated for by the Lower Owens River Project, how can the reader conclude that the mitigation is true compensation without a more specific description of the project? What types of habitats have been impacted and in what quantity? What types of habitats will be created and in what quantity? Creation of a thin green line to compensate for the "web" of wetlands does not seem adequate. Certainly a spring environment cannot be mitigated at all by the creation of an artificial environment: remaining natural springs MUST be left intact as mitigations themselves. They are all that remains of the Owens Valley natural water heritage.

p11-42 "LADWP would continue to conduct its program of on-going wildlife inventories, monthly wildlife censuses, raptor surveys, habitat assessments, breeding bird surveys and other ecological studies." Where is the data and methodology of these activities so the reader can see if the pre-project description is indeed impossible and judge the history of management

effectiveness by the LADWP in terms of wildlife? What inventories, where, how, by whom, what data? What wildlife censuses, where, how, by whom, what data? Repeat the same questions for the other surveys, assessment and ecological studies.

Additional wildlife comments:

1. What monitoring is planned for the enhancement/mitigation projects?

2. None of the E/M projects proposed are that beneficial to shorebirds, particularly migrants (peeps etc.). These species need mudflats with rich invertebrate food systems. Therefore the LADWP should work as quickly as possible to see that the Keeler artesian well capping and wetland development project that it is a party to is completed. This development will maintain and possibly enhance habitat for thousands of migrating shorebirds. None of the proposed E/M projects even approaches the importance of the Keeler artesian well effort.

3. An off-site mitigation for the loss of shorebird /waterfowl habitat should be the acquisition of the Clasped Hands property (39 acres) in Cartago. This area is critical habitat for the candidate species snowy plover as well as other species of migrating birds.

4. Reinhackle Spring has a freshwater snail that is new to science. The following researcher should be contacted for information on snails in the valley wetlands:

Dr. Robert Hershler  
Dept. of Vertebrate Zoology, NHB Stop 118  
National Museum of Natural History  
Smithsonian Institution  
Washington, DC 20560

CHAPTER 16 ANCILLARY FACILITIES

P16-1 Groundwater Recharge Facilities- How will existing management practices change as a result of the new facilities? Will less water be spread in wet habitats and will less reach the river? What effect will the recharge projects have on groundwater pumping and export? The DEIR should display existing recharge capacities and actual recharge that has occurred due to spreading. What effect has recharge had on water export? What are the benefits of expansion versus any environmental impacts?

p16-14 New Wells- The DEIR must explain what "operational flexibility" is as well as how rotational pumping will be conducted. Rotational pumping must be evaluated and the benefits and impacts discussed.

Additional new well comments:

1. How were the new well sites selected?  
2. How will they be operated and what environmental effects are expected?

3. What monitoring plan will be used to see that the goals of the Agreement are met?

4. New well construction should be indefinitely delayed until the Agreement and the Green Book methodology has been field tested. No demonstrated "need" has been shown for the

new wells at present. Certainly the controversy over them all being located in the remaining wet habitats is reason for caution. The "conservative" approach to water management during the drought should be extended to these new wells. NO new wells should be located where they are projected to cause stoppage or reduction in any remaining springs- for example Reinhackle Spring.

p16-35 Mitigation 16-11- The phrase, "or provide water to avoid such decreases or changes." must be deleted. Reinhackle Spring, as discussed earlier represents the last large natural spring in the Owens Valley. It is an example of our water heritage. NO impacts are acceptable and NO mitigation is adequate. Reinhackle Spring should itself be a mitigation.

p16-35 Impact 16-12- "...nearest groundwater-dependent vegetation is over one mile away." After the experience at Five Bridges where vegetation was killed on the OTHER side of the Owens River from the pump, no vegetation should be considered "safe" without evidence that this indeed is the case. Near the newly proposed Lone Pine well are significant stands of riparian vegetation that may be impacted.

#### CHAPTER 17 CEQA CONSIDERATIONS

p17-5 Land Management- "...the following grazing management program will continue..." What is the grazing program of the LADWP? What is its methodology? How many leases are there and where are they? What is the condition, trend and utilization of the range? How is the range monitored? What are its standards and its guidelines? What are the fees charged to leasees? What are the operating plans for each lease?

CEQA requires that the public be involved in the LADWP grazing process and that CEQA compliance, i.e. documents, be prepared for range activities. In order for the public to be informed enough to judge the adequacy of range projects in the DEIR and in the future, the above questions must be answered.

p17-12,17-7 Areas of Controversy- Two areas of controversy were omitted for the DEIR.

1. The lack of effective water conservation by the LADWP and its use as a viable alternative to groundwater pumping and export.

2. Grazing practices by the LADWP. The lack of public knowledge of the program and their inability to participate in it.

The following are comments on the Green Book:

p7 para 2, The word "may" should be changed to "will".

p12 para 1 Any rewatering of a monitoring site by the LADWP would destroy the value of the site for monitoring. This should NOT occur.

para 2 Supplying water to a natural wetland site should not lead to its transforming it into a permanently artificial wetland. Pumping must cease or be reduced before considering the application of surface water.

p16 ii Water must not be applied to any natural

wetlands in such a manner as to render it a permanently dependent artificial environment.

p16 11 Same comment as above.

p26 c This section should be eliminated since if the change is measureable and attributable then pumps should be shut off. This section contradicts the goals of the agreement and is wholly unnecessary for the above reasons.

60

p44 Under the Agreement change is allowed within types of vegetation. However, NONE of the Type D communities should be allowed to convert into Tamarisk Scrub. In addition, within Type E, no native community or irrigated pasture should be allowed to convert to alfalfa or other exotic commercial crop.

p100 d No additional wells should be drilled until it has been demonstrated that there are no impacts associated with existing well management. This entire Section B. has no mitigation for impacts associated with new wells. As a conservative policy, NO new wells should be constructed at all until it is proven in the field that the goals of the Agreement are being met using the methodology in the Green Book.

p115 para 2 The estimation of runoff could be inaccurate for areas of the valley depending on the condition of the snowpack in specific locations along the Sierra. Snowpack may be below normal at the south end of the valley compared to the north and therefore reductions in pumping would be necessary.

p117 Projects- Which projects WILL be and which SHOULD be conducted? This is unclear.

61

The following are comments on the Agreement:

B-9 Technical Group representatives should be qualified for the position and issues involved in by the committee.

B-10,13 "outside the Owens Valley" must be more defined.

B-19 No conversion to alfalfa or similar crop should be allowed within Type E.

B-26,22 The unilateral rewatering of a monitoring site by the LADWP will invalidate soil water balance protections in the Agreement.

B-28,26 Inyo County must have a voice beyond mere consultation in any modification of the pumping program.

B-41 Add the Owens Lake shores to the salt cedar eradication program. Valuable wetlands have been impacted by these water-wasting species.

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## RESPONSES TO COMMENTS

### LETTER C13

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#### RESPONSE C13-1

Please refer to response to master comment AL-3 for an update on water conservation efforts by Los Angeles.

#### RESPONSE C13-2

For a discussion of revegetation please refer to the response to master comment MT-2. Also, the response to master comment VE-3 presents a discussion concerning the estimated acreage that requires revegetation.

#### RESPONSE C13-3

A number of comments to the Draft EIR have been received from State, federal, and other agencies. These are included in the List of Letters under Sections A and B. Issues raised by these agencies are similar to those raised by other organizations. Responses to them form part of the Final EIR. The response to master comment PD-3 discusses the exclusion of Mono Basin as part of this EIR.

#### RESPONSE C13-4

Data for Inyo County alone were not available prior to 1968; this is why the data for Inyo and Mono Counties are combined in the Draft EIR.

#### RESPONSE C13-5

The 1984-87 inventory was based on transect data done by LADWP personnel. As indicated in the Green Book, data gathered include the percent live cover and the percent composition for each

species in a given parcel. Community names were then given to each parcel, parcels were subsequently assigned to a management category. Parcels would be constantly monitored for change through both field surveys and aerial photography as provided under the Green Book.

The Agreement is the result of negotiations between Los Angeles and Inyo County. In recognition of the current drought, the Standing Committee has formulated a drought recovery policy. Please refer to the response to master comment PD-17 for a discussion of this policy; and also see response B13-30 in Letter B-13 regarding the worst case condition.

The final part of this comment concerns the management category for the Lower Owens River. The management maps were based on the 1984-87 inventory and reflected 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 1, page 117; also see the Agreement, Section XXV, page B-58, line 19.

#### RESPONSE C13-6

For a discussion of vegetation changes allowed under the Agreement please refer to response to master comment VE-1. This response also discusses the potential conversion of other vegetation to alfalfa. Please refer to response to master comment EA-1 regarding pre-project conditions.

#### RESPONSE C13-7

Hatchery wells are exempt from well turn off under the Agreement and will continue to be exempt in the foreseeable future. Many of the environmental projects implemented from 1970 to 1984 are the result of public meetings and were not necessarily intended to be in-kind, on-site mitigation. In accordance with the Agreement, the environmental projects will be continued. See the Draft EIR, Chapter 5, page 5-18. Concerning Calvert Slough, see response A4-40 in Letter A-4. Please refer to response to master comment MT-1 for more discussion of this issue. For an elaboration of the concept of mitigation under CEQA please refer to response to master comment MT-3; and MT-6 for discussion of the Lower Owens River Project.



RESPONSE C13-8

This comment has several unrelated parts. Regarding saltcedar, please refer to response to master comment VE-7 for more information on the proposed saltcedar control program. The sites identified in this comment will be considered for saltcedar control.

Development on wetlands are subject to a number of laws and policies such as the California Fish and Game Code and Section 404 of the Clean Water Act. Please refer to response to master comment PD-15 for more discussion of the release of LA-owned lands.

Finally, please refer to response to master comment PD-16 regarding the recreational uses of the Haiwee Reservoirs. Final recreation uses have not yet been fully determined at the Haiwee Reservoirs.

RESPONSE C13-9

Please refer to response to master comment AL-3 for an update on conservation efforts by Los Angeles.

RESPONSE C13-10

Please see response to master comment WA-1 for a discussion on how water resource impacts were evaluated in the Draft EIR.

RESPONSE C13-11

Although the constant flow through the Owens River, north of the intake may have had some effect on erosion levels, downcutting, and riparian vegetation, it is believed that these impacts have not been significant as described in the Draft EIR (on pages 10-49 and 10-50). Riparian losses have occurred in the Owens River below the intake, but this was the result of the first Los Angeles aqueduct.

Impacts 9-7 and 10-7 shown in the Draft EIR are correct and consistent with each other. There have been no changes in operations at Tinemaha Reservoir due to the project which could result

in significant vegetation impacts. Regarding saltcedar control, please refer to response to master comment VE-7.

Regarding the use of hatchery water, please see response C11-34 in Letter C-11.

#### RESPONSE C13-12

Please refer to responses to master comments MT-3 for a description of mitigations under CEQA, and MT-6 which provides a more detailed description of the Lower Owens River Project.

#### RESPONSE C13-13

Comment noted. Please see response to master comment WA-4 regarding protection of Reinhackle Spring; and WA-5 for a discussion of water level response to pumping pressure. Seeps and springs will be protected; please see response to master comment PD-5 regarding seeps and springs in general.

#### RESPONSE C13-14

LADWP is committed to the preservation and enhancement of wildlife habitat. Please refer to responses to master comments EA-1, WL-2, WL-4, and WL-6.

#### RESPONSE C13-15

Please see response to master comment WA-4 regarding pumping in the area of Reinhackle Spring.

#### RESPONSE C13-16

Comment noted. No further response is required.

#### RESPONSE C13-17

See response C11-34 to Letter C-11.

RESPONSE C13-18

A description of the Lower Owens River Project is provided in MT-6 and Appendix C-2. Considerable work remains to develop baseline data of the type requested in this comment. Such data will be generated prior to implementation of the Lower Owens River Project.

RESPONSE C13-19

Operational spreading occurs when sufficient runoff allows. Please refer to response to master comment MT-6 for additional discussion of the Lower Owens River Project. 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 C13-20

There are four E/M wells exempt from turn off. It should be noted that during the 1991/92 runoff year, several E/M wells have been turned off in accordance with the Agreement. Please refer to response to master comment PD-5 regarding mitigation of springs, and the requirement for water quality.

RESPONSE C13-21

The median is actually 4.3 inches, please refer to response to comment C11-25 in Letter C11. Regarding Fish Slough Milk Vetch, comment is noted.

RESPONSE C13-22

Type E lands consists of vegetation primarily dependent on supplied surface water and includes alfalfa, pasture, recreation uses, wildlife areas, and enhancement/mitigation projects. The policy is intended to supply these lands with surface water on a regular or seasonal basis; however, there are some areas that would not receive surface water depending on flows in creeks. These are areas not supplied by groundwater.

RESPONSE C13-23

Comment noted. Please refer to responses to master comment MT-3 which discusses the types of mitigation called for under CEQA.

RESPONSE C13-24

Comment noted. The Lower Owens River Project is in its formative stages. Please see Response C13-18 above.

RESPONSE C13-25

Please see response A4-40 in Letter A-4 regarding Calvert Slough.

RESPONSE C13-26

This comment has several unrelated parts, mostly expressing personal opinions. These comments are noted.

RESPONSE C13-27

Comment noted. No further response is required.

RESPONSE C13-28

The Lower Owens River Project is acceptable mitigation. See response to comment MT-6. Also 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 C13-29

This comment has several parts. Each is noted and no further response is necessary. Comments regarding saltcedar control and Haiwee Reservoir uses are noteworthy and will be considered.

RESPONSE C13-30

Comment noted. No further response is required.

RESPONSE C13-31

Comment noted. For discussion of LADWP's grazing management program, please see response to master comment PD-14.

RESPONSE C13-32

This comment has several parts. Please refer to response to master comment WA-4 regarding the preservation of Reinhackle Spring. The other comments are noted and no further response is necessary.

RESPONSE C13-33

For a discussion of mitigation under CEQA please refer to response to master comment MT-3, and to MT-6 for discussion of the Lower Owens River Project.

RESPONSE C13-34

This comment has several unrelated parts. The Green Book clearly outlines a series of projects and studies that will be conducted in the coming years. While not all studies may be started at the same time, many are now underway and it is expected that others will begin soon. The Technical Group is in the process of developing a schedule for these studies. The public will have access to this information and can supply comments and suggestions through the Inyo County Water Department and LADWP.

Regarding the comment pertaining to "degree of significance," the comment is noted. No further response is required.

Concerning surface water application, see response to master comment PD-5.

RESPONSE C13-35

That parts of the Wildlife chapter are problematic is acknowledged. Please refer to responses to master comments EA-1 and WL-1 through WL-6 for revisions to this chapter.

RESPONSE C13-36

Regarding page 11-5, the statement was to convey the fact that valley residents reported seeing some species that had not been observed since the settlement of the valley, or that some were now a common sight when only rarely seen in previous years (e.g., the Inyo Register, November 29, 1900 reported that "canvasback ducks seen frequently this season were heretofore almost unknown in these parts"). Additional information regarding historical references has been provided. Please refer to response to master comment WL-2.

RESPONSE C13-37

The comment is essentially correct in that pre-project wildlife habitat could be qualitatively described -- but no quantification of wildlife populations are possible due to absence of such data. Please refer to response to master comment EA-1 for a discussion of pre-project conditions.

RESPONSE C13-38

The potential for effects on wildlife and plant species in wetland habitats is acknowledged. Please refer to response A4-17 in Letter A-4 regarding aquatic habitats, and Appendix A-1 regarding effects on selected springs in the valley; also see Appendix C-4 for information on habitat preferences of wildlife species.

RESPONSE C13-39

The listing of birds has been updated and corrected or revised in response to public comment. Please refer to response to master comment WL-1 and Appendix C-1.

RESPONSE C13-40

Please refer to response to master comment EA-1 for a discussion of pre-project conditions in general, and the qualitative nature of the analysis of wildlife impacts in particular.

RESPONSE C13-41

Tables and lists of birds and other animals have been corrected and updated. See Appendices C-1 and C-4, and response to master comment WL-1.

RESPONSE C13-42

The Point Reyes Bird Observatory has been contacted regarding the Snowy Plover. No impacts to Snowy Plover nesting areas are anticipated due to the proposed project.

RESPONSE C13-43

Comment noted. Please refer to Table A1-2 in Appendix A-1 for endangered, threatened or fully protected species typically found in riparian habitats, also see Appendix C-4 for information on habitat preferences of wildlife species.

RESPONSE C13-44

Comment noted. The burn at Moffitt Ranch was an isolated incident and is outside the scope of the project. LADWP seasonal censuses of wildlife species typically include all species observed along established routes (see master comment WL-6). This data is available for public review at LADWP's Bishop office. The Department of Fish and Game also possesses pertinent information on wildlife of interest.

RESPONSE C13-45

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

RESPONSE C13-46

Comment noted. The EIR authors believe that a regular supply of water would be more beneficial in creating viable habitat. No further response is required.

RESPONSE C13-47

For a discussion of mitigation under CEQA please refer to response to master comment MT-3, and to MT-6 for a discussion of the Lower Owens River Project. Los Angeles and Inyo County agree that springs and seeps should be afforded special protection. Please refer to response to master comment PD-5 and WA-4.

RESPONSE C13-48

Wildlife data are available for review at LADWP's Bishop office.

RESPONSE C13-49

No specific wildlife monitoring program for E/M projects is planned at this time. Please refer to response to master comment WL-6 regarding LADWP wildlife monitoring program.

RESPONSE C13-50

Comment noted. No further response is required.

RESPONSE C13-51

Comment noted. No further response is required.

RESPONSE C13-52

Comment noted. No further response is required.

RESPONSE C13-53

Please refer to response to master comment AF-1 for a discussion of recharge facilities.

RESPONSE C13-54

Please refer to response to master comment PD-4 regarding new well operation and selection, and WA-4 regarding Reinhackle Spring.



RESPONSE C13-55

Please refer to response to master comment WA-4 regarding Reinhackle Spring and provisions for its protection, and PD-5 regarding protections to springs under the Agreement.

RESPONSE C13-56

Please see response to master comment AF-2 regarding new wells in the Lone Pine area. The comment regarding the effects observed at Five Bridges is noted.

RESPONSE C13-57

For a discussion of LADWP grazing program please refer to response to master comment PD-14. Grazing management is not part of the project.

RESPONSE C13-58

Comment noted. Conservation is addressed in response to master comment AL-3, and grazing is addressed in response to master comment PD-14.

RESPONSE C13-59

Comment noted. Please refer to response to master comment PD-5, PD-6, and WA-4 for additional discussion.

RESPONSE C13-60

Regarding the potential conversion of other plant communities to alfalfa and other changes allowed under the Agreement, please refer to response to master comment VE-1. Also see responses to master comments PD-4 and AF-2 regarding new wells. Comment noted regarding runoff and snowpack.

RESPONSE C13-61

Comment noted. These issues have been addressed in previous responses in this letter.



**Letter C14**

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**Woodland Hills Chamber of Commerce**

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**References**

1000

• *Regulation of the cell cycle*

**Figure 1**

10

2000

**Ergonomics**

.....  $\mu_{\text{H}_2\text{O}}$

[illegible]

Page 4 of 4

<sup>2</sup>With these assumptions, the

 $a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z$ 

$\rho_{\text{eff}} = 0.9 \pm 0.05$



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January 25, 1991

RECEIVED

JAN 30 1991

RECEIVED  
 SAN FRANCISCO, CA.

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

Dear Mr. David:

### Groundwater Pumping in the Owens Valley

We have reviewed the Draft EIR and the Agreement between the City of Los Angeles and the County of Inyo for a long-term groundwater management plan for the Owens Valley. One area of concern is that it appears Los Angeles will be giving up substantial control over its water operations in the Owens Valley which will have the effect of reducing the reliability of water supply for Los Angeles. We recognize the agreement seeks to strike a balance between environmental protection and water for Los Angeles. However, a reliable water supply is critical to business and industry in Los Angeles.

One area of the agreement of particular concern is the provision that the use of irrigation water on Los Angeles-owned lands can only be reduced in dry years if such reduction is approved by the Inyo County Board of Supervisors. This could result in a situation during a drought where people and businesses in Los Angeles are required to ration water while full irrigation is provided to City lands in the Owens Valley. Typically in California, agricultural water uses are reduced before municipal uses are reduced. This issue warrants further consideration and possible modification.

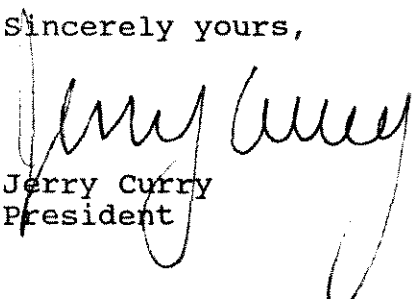


*"The Chamber Means Business"*  
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The proposed project in the Draft EIR appears reasonable, but it results in only a moderate increase in water supply compared to the no-project alternative. To be of benefit to the business and industry community in Los Angeles, a project would increase both the quantity and reliability of water supply for Los Angeles. We urge you to keep both in mind when the final selection is made.

Thank you for the opportunity to comment on the Draft EIR.

Sincerely yours,

  
Jerry Curry  
President

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**RESPONSES TO COMMENTS**  
**LETTER C14**

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**RESPONSE C14-1**

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 C14-2**

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.





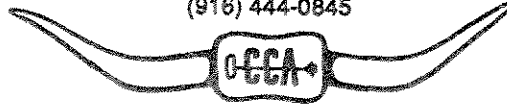
**Letter C15**

**California Cattlemen's Association**



## CALIFORNIA CATTLEMEN'S ASSOCIATION

1221 H STREET · SACRAMENTO, CALIFORNIA · 95814-1910  
(916) 444-0845



January 28, 1991

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

Dear Mr. Davis:

The California Cattlemen's Association appreciates the opportunity to comment on the Draft EIR September, 1990, "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct; 1970-1990; 1990 Onward, Pursuant to a Long Term Groundwater Management Plan."

The California Cattlemen's Association is a trade association representing all facets of the beef cattle industry. We currently represent 3200 members holding 70 percent of the cattle raised in the state of California.

In reviewing the document we find a reference to livestock grazing in Section 17, page 17-5 under the heading of Land Management. This section continues on page 17-6. Seeing no new discretionary action being taken in this EIR and noting that the current system has been in practice for 20 years, we recognize that there is nothing discretionary to be addressed. Given the aforementioned, we fully support the Draft EIR, September, 1990 and urge that the Land Management section be incorporated, in its entirety in the Final EIR.

Thank you again for the opportunity to comment on this important document. We fully support the existing Draft EIR, September, 1990.

Sincerely,

*John L. Braly*  
John L. Braly,  
Executive Vice President



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## RESPONSES TO COMMENTS

### LETTER C15

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#### RESPONSE C15-1

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 C16**

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**California Indian Legal Services**







CALIFORNIA INDIAN LEGAL SERVICES

POST OFFICE BOX 993  
BISHOP, CALIFORNIA 93515  
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OAKLAND, CALIFORNIA 94612  
(415) 835-0284

28 January 1991

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

Dear Mr. Davis:

The following comments are submitted on behalf of the Bishop Paiute/Shoshone Tribe.

1. The Tribal Council asks that the comments submitted by the Big Pine Paiute/Shoshone Tribe be incorporated by reference and considered a part of the comments made in this letter.

2. The Bishop Tribe has historically irrigated crops in the Bishop Creek drainage area since prehistoric times. The EIR fails to adequately discuss these practices.

3. The Bishop Tribe has survived on a small reservation which has a land base that is inadequate for our present and future needs. The EIR fails to discuss the impacts of the LADWP water gathering activities on the Tribe's ability to acquire more land for housing and economic development.

Sincerely,

LAWRENCE R. STIDHAM  
On Behalf of the Bishop  
Paiute/Shoshone Band of  
Indians

LRS/sw



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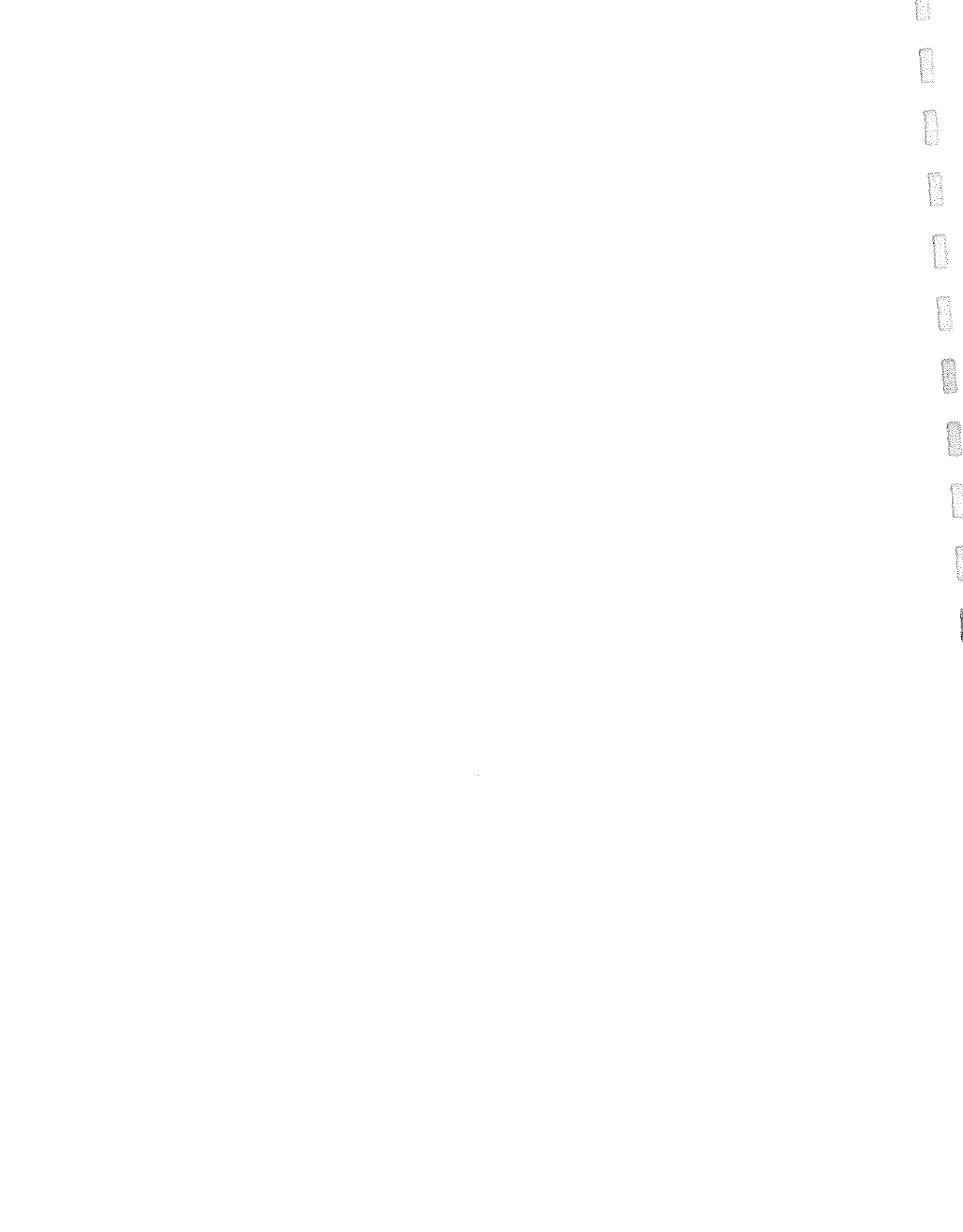
## **RESPONSES TO COMMENTS**

### **LETTER C16**

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#### **RESPONSE C16-1**

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. Also please see responses to Letter B-13.



**Letter C17**

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**Inyo County Cattlemen's Association**



Inyo County Cattlemen's Association  
Gary Giacomini, President  
100 Warm Springs Road  
Bishop, CA 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 Los Angeles Department  
of Water and Power and Inyo County

Dear Mr. Davis:

The Inyo County Cattlemen's Association appreciates the opportunity to comment on the Draft Environmental Report (DEIR) your group has prepared for the Los Angeles Department of Water and Power on the Owens Valley Water Agreement.

On pages 17-5 and 17-6 the DEIR makes it obvious that "grazing management is not a part of the proposed project". We fully support this statement and stand strongly opposed to any efforts to the contrary. Groups or individuals that are concerned about grazing must realize its absolute relationship with vegetation. If, as the project proposes, the vegetation is protected from the effects of all water management activities, you will have achieved what is needed for the environmental health of the Owens Valley. The fourth sentence on page 17-5 "LAND MANAGEMENT" should read "vegetation and livestock grazing are subject to the cumulative effects of water management activities".

It should be noted that the grazing management plan outlined on page 17-6 has been in place for 20 years. The detrimental effects on vegetation observed on the valley floor are from drought and a few water management mistakes (i.e. Five Bridges), not from grazing. To suggest otherwise is erroneous. In short, we agree with the DEIR wording that leaves the land/grazing management decisions in the hands of LADWP.

Page 5-6 describes the make-up of the LADWP/Inyo County Technical Group. We request that whenever this group makes decisions that relate in any way to grazing (i.e. mitigation), that the County Water Department be required to include the University of California Cooperative Extension's Farm Advisor as one of their representatives. The Farm Advisor would lend invaluable grazing, vegetation, and livestock expertise to a group sorely in need of it.

EIP Associates  
January 28, 1991  
Page 2

We support fully the efforts to reach a water accord between LADWP and Inyo County. We hope the Environmental Impact Report document stays within the original intents of that undertaking: To manage water gathering activities.

Sincerely,

A handwritten signature in cursive script that reads "Gary Giacomini".

Gary Giacomini  
President  
Inyo County Cattlemen's Association



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## **RESPONSES TO COMMENTS LETTER C17**

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### **RESPONSE C17-1**

Comment noted. Please refer to response to master comment PD-14 for discussion of livestock grazing management.

### **RESPONSE C17-2**

Comment noted. No further response is required.

### **RESPONSE C17-3**

Comment noted. Please refer to response to master comment PD-7 for additional discussion of monitoring provisions of the Green Book.



**Letter C18**

**University of California Cooperative Extension, Inyo & Mono Counties**

$$\begin{array}{c} \text{H} \\ | \\ \text{H}-\text{C}-\text{H} \\ | \\ \text{H} \end{array}$$

1. *Chlorophyll a*  
 2. *Chlorophyll b*  
 3. *Chlorophyll c*  
 4. *Chlorophyll d*  
 5. *Chlorophyll e*  
 6. *Chlorophyll f*  
 7. *Chlorophyll g*  
 8. *Chlorophyll h*  
 9. *Chlorophyll i*  
 10. *Chlorophyll j*  
 11. *Chlorophyll k*  
 12. *Chlorophyll l*  
 13. *Chlorophyll m*  
 14. *Chlorophyll n*  
 15. *Chlorophyll o*  
 16. *Chlorophyll p*  
 17. *Chlorophyll q*  
 18. *Chlorophyll r*  
 19. *Chlorophyll s*  
 20. *Chlorophyll t*  
 21. *Chlorophyll u*  
 22. *Chlorophyll v*  
 23. *Chlorophyll w*  
 24. *Chlorophyll x*  
 25. *Chlorophyll y*  
 26. *Chlorophyll z*  
 27. *Chlorophyll aa*  
 28. *Chlorophyll ab*  
 29. *Chlorophyll ac*  
 30. *Chlorophyll ad*  
 31. *Chlorophyll ae*  
 32. *Chlorophyll af*  
 33. *Chlorophyll ag*  
 34. *Chlorophyll ah*  
 35. *Chlorophyll ai*  
 36. *Chlorophyll aj*  
 37. *Chlorophyll ak*  
 38. *Chlorophyll al*  
 39. *Chlorophyll am*  
 40. *Chlorophyll an*  
 41. *Chlorophyll ao*  
 42. *Chlorophyll ap*  
 43. *Chlorophyll aq*  
 44. *Chlorophyll ar*  
 45. *Chlorophyll as*  
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 47. *Chlorophyll au*  
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 49. *Chlorophyll aw*  
 50. *Chlorophyll ax*  
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 52. *Chlorophyll az*  
 53. *Chlorophyll ba*  
 54. *Chlorophyll bb*  
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 57. *Chlorophyll be*  
 58. *Chlorophyll bf*  
 59. *Chlorophyll bg*  
 60. *Chlorophyll bh*  
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 65. *Chlorophyll bm*  
 66. *Chlorophyll bn*  
 67. *Chlorophyll bo*  
 68. *Chlorophyll bp*  
 69. *Chlorophyll bq*  
 70. *Chlorophyll br*  
 71. *Chlorophyll bs*  
 72. *Chlorophyll bt*  
 73. *Chlorophyll bu*  
 74. *Chlorophyll bv*  
 75. *Chlorophyll bw*  
 76. *Chlorophyll bx*  
 77. *Chlorophyll by*  
 78. *Chlorophyll bz*  
 79. *Chlorophyll ca*  
 80. *Chlorophyll cb*  
 81. *Chlorophyll cc*  
 82. *Chlorophyll cd*  
 83. *Chlorophyll ce*  
 84. *Chlorophyll cf*  
 85. *Chlorophyll cg*  
 86. *Chlorophyll ch*  
 87. *Chlorophyll ci*  
 88. *Chlorophyll cj*  
 89. *Chlorophyll ck*  
 90. *Chlorophyll cl*  
 91. *Chlorophyll cm*  
 92. *Chlorophyll cn*  
 93. *Chlorophyll co*  
 94. *Chlorophyll cp*  
 95. *Chlorophyll cq*  
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 97. *Chlorophyll cs*  
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 104. *Chlorophyll cz*  
 105. *Chlorophyll da*  
 106. *Chlorophyll db*  
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 108. *Chlorophyll dd*  
 109. *Chlorophyll de*  
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 116. *Chlorophyll dl*  
 117. *Chlorophyll dm*  
 118. *Chlorophyll dn*  
 119. *Chlorophyll do*  
 120. *Chlorophyll dp*  
 121. *Chlorophyll dq*  
 122. *Chlorophyll dr*  
 123. *Chlorophyll ds*  
 124. *Chlorophyll dt*  
 125. *Chlorophyll du*  
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 127. *Chlorophyll dw*  
 128. *Chlorophyll dx*  
 129. *Chlorophyll dy*  
 130. *Chlorophyll dz*  
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 133. *Chlorophyll ec*  
 134. *Chlorophyll ed*  
 135. *Chlorophyll ee*  
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 137. *Chlorophyll eg*  
 138. *Chlorophyll eh*  
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 148. *Chlorophyll er*  
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 150. *Chlorophyll et*  
 151. *Chlorophyll eu*  
 152. *Chlorophyll ev*  
 153. *Chlorophyll ew*  
 154. *Chlorophyll ex*  
 155. *Chlorophyll ey*  
 156. *Chlorophyll ez*  
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 168. *Chlorophyll fl*  
 169. *Chlorophyll fm*  
 170. *Chlorophyll fn*  
 171. *Chlorophyll fo*  
 172. *Chlorophyll fp*  
 173. *Chlorophyll fq*  
 174. *Chlorophyll fr*  
 175. *Chlorophyll fs*  
 176. *Chlorophyll ft*  
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 183. *Chlorophyll ga*  
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 187. *Chlorophyll ge*  
 188. *Chlorophyll gf*  
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 190. *Chlorophyll gh*  
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 194. *Chlorophyll gl*  
 195. *Chlorophyll gm*  
 196. *Chlorophyll gn*  
 197. *Chlorophyll go*  
 198. *Chlorophyll gp*  
 199. *Chlorophyll gq*  
 200. *Chlorophyll gr*  
 201. *Chlorophyll gs*  
 202. *Chlorophyll gt*  
 203. *Chlorophyll gu*  
 204. *Chlorophyll gv*  
 205. *Chlorophyll gw*  
 206. *Chlorophyll gx*  
 207. *Chlorophyll gy*  
 208. *Chlorophyll gz*  
 209. *Chlorophyll ha*  
 210. *Chlorophyll hb*

[illegible]

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**•**

**09/06/2017 14:46:00**

*E. coli*

.....

*Thyridopteryx*

[illegible]

Source: *Journal of the American Medical Association*, 1997, 277:1029-1032.

• <http://www.ck12.org/Book-Search>

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COOPERATIVE EXTENSION  
UNIVERSITY OF CALIFORNIAINYO & MONO COUNTIES  
January 28, 1991207 WEST SOUTH ST.  
TELEPHONE 873-XXXX 7854  
AREA CODE 619  
BISHOP, CALIFORNIA  
93514Mr. John A. Davis, P.E.  
Senior Vice President  
EIP Associates  
150 Spear Street, Suite 1500  
San Francisco, CA 94105

Dear Mr. Davis:

The following are my comments to the Draft Environmental Impact Report, Water From the Owens Valley to Supply the Second Los Angeles Aqueduct, SCH #89080705.

My comments are restricted to Chapter 11, Wildlife, and Appendix C, Wildlife Habitat Table.

On page 11-1 it is stated, "Vegetation and water availability determine the quality of the habitat available for animals." "...Therefore, wetter habitats tend to support many more species at greater densities." On page 11-40, in discussing Mitigation Measure 11-1, it is stated, "...therefore, water management to create wet habitats will be used to mitigate the significant adverse impacts of the project."

I have some concerns about this concept. Wetter habitats may support more species and more numbers of animals, but they also support different species. Past water releases have created Tamarisk problems and have altered environmental conditions for the species in place in those areas. The Yucca night lizard, Xantusia vigilis, may reach the northern limits of its range in the Owens Valley, near Independence. Making habitats wetter in that area may eliminate this species from the northern range of its habitat. This is only one example of many that could be offered to show adverse effects of adding water to previously dry habitats. In this arid climate, adding water can be devastating to many species of plants and animals.

The bullfrog, Rana catesbeiana, should be added to Table 11-1, page 11-6. This species was introduced into California between 1905 and 1915 (Bury & Whelan 1984). Range extensions of this species should be considered anytime that areas of permanent water are added in the Owens Valley. This species can be detrimental to a number of native species of fish, amphibians, and birds because of the wide variety of prey species that it will consume. The introduction of the bullfrog has resulted in the extirpation of the red-legged frog, Rana aurora, over much of its range in the San Joaquin Valley of Cali-

fornia (Moyle 1973). The bullfrog is often the dominant species in aquatic habitats (Bury & Whelan 1984).

In the discussion of the ring-necked pheasant on page 11-13, it is stated that large numbers of birds are released annually by the Rainbow Club and the Department of Fish & Game. To my knowledge, this practice was discontinued a number of years ago. Despite that, small remnant populations persist north of Bishop, including Round Valley.

On page 11-15 it is stated that the blackbilled magpie and the common raven are considered nuisances in the towns of the Owens Valley. This office receives a number of vertebrate complaint calls each year. We have not received a single complaint about either of these species since I was assigned here in October, 1978. I doubt that they are causing significant problems to the town residents.

On page 11-16, "myrtle warble" should read "myrtle warbler".

On page 11-20, weasels and minks are anthropomorphically referred to as "vicious predators". This seems to be inappropriate for this type of scientific document.

On page 11-22, it is stated that the last Tule Elk hunt took place in 1969. Tule Elk hunts occurred in the Owens Valley in 1989 and 1990. This omission is partially corrected on page 11-36.

I believe it is incorrect to state that there is little carryover of rainbow trout, as is stated on page 11-22. At least in the Owens River, carryover seems to be significant.

On page 11-25, it is stated that thirty species of reptiles occur in the Valley. On page 11-27 it is stated that 32 species occur on City of Los Angeles-owned lands in the Valley.

On page 11-25, it is stated that "The California and Great Basin spadefoot toads are nocturnal". Are you referring to the California Toad here? If so, this sentence is unclear to me.

On page 11-40, line 10, reference is made to "(Heindel, 1990)". This citation does not appear in the Bibliography.

Appendix C, Wildlife Habitat Table contains an excessive number of typographical errors in the animal lists. In addition, a number of common and scientific names are improperly applied or obsolete. I have enclosed copies of some of the pages with some of the errors noted. I am sure that there are additional errors that I have not caught. This section needs to be reviewed carefully by biologists familiar with the taxonomy of each vertebrate group. If the subspecific names are going to be included in the Reptiles and Amphibians Sections, then they should be included for all taxa. In a document of this sort, I am not sure that subspecies is necessary. In the sections on reptiles and amphibians, I have also included records of new species that are not already noted in the EIR, but that occur here.

Recently, salamanders have been discovered in Sierra canyons feeding into the Owens Valley. The Inyo Mountains Salamander, Batrachoseps campi, is also

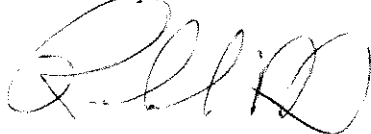
found in the Inyo Mountains. As salamanders are especially sensitive to water manipulation, the State of California, Department of Fish & Game, should be contacted to determine if there are potential problems with salamanders here.

15

In reviewing the section on reptiles and amphibians I used Standard Common and Current Scientific Names for North American Amphibians and Reptiles (Second Edition), by Joseph T. Collins et al, published by the Society for the Study of Amphibians and Reptiles (SSAR). The Third Edition has just been released and may be obtained by sending a check for \$5.00 made out to SSAR and sending the order to Douglas H. Taylor, Department of Zoology, Miami University, Oxford, Ohio 45056.

I appreciate the opportunity to comment on the content of this EIR. If my comments are unclear, or if you wish to contact me, please feel free to do so.

Sincerely,



RICHARD R. SCOTT  
County Director & 4-H Advisor

Encl.

cc: Inyo County Board of Supervisors

#### REFERENCES

Bury, R. Bruce and Jill A. Whelen. 1984. Ecology and management of the bullfrog. U.S. Fish Wildl. Serv., Resour. Publ. 155. 23 pp.

Moyle, P.B. 1973. Effects of introduced bullfrogs, Rana catesbeiana, on the native frogs of the San Joaquin Valley, California. Copeia 1973:18-22.

## BIRDS

GaviiformesCommon loon (*Gavia immer*)

A,B

FC, m

851,25,11,10,6

PodicipediformesEared grebe (*Podiceps nigricollis*)

A,B

C, sr, B

8,6,11,12

Pied-billed grebe (*Podilymbus podiceps*)

A,B

FC, yl, B

12,8,11,6

Western grebe (*Aechmophorus occidentalis*)

A,B

C, sr, B

8,6,11,12

PelecaniformesWhite pelican (*Pelicanus erythrorhynchos*)

A

FC, m

8

Double-crested cormorant (*Phalacrocorax auritus*)

A

FC, m

8,12,13

CiconiiformesGreat blue heron (*Ardea herodias*)herodias

A,B,G

C, yl, B

8,6,12,15a,10,9

Green heron (*Butorides virescens*)trinitas

A,B

U, M,

12,8,6

Black-crowned night heron (*Nycticorax nycticorax*)

A,B

U, m

8,12,6,10,15a

American bittern (*Botaurus lentiginosus*)

A,B

FC, yl, B

8,6,10,12,15a

Least bittern (*Ixobrychus exilis*)Ixobrychus

A,B

R, m

6,10,8,12,15a

Common egret (*Casmerodius albus*)

A,B,G

U, m

12,6,10,8,9,15a

Snowy egret (*Egretta thula*)

A,B,G

FC, m (R,sr)

12,6,10,8,9,15a

Cattle egret (*Bubulcus ibis*)Bubulcus

A,B,D,G

R, m

10,9,12,6,8

White-faced ibis (*Plegadis chihi*)

B,G

A, T

8,6,12,11a

AnseriformesWhistling swan (*Olor columbianus*)Cygnus or Olor

A,B

FC, wt(locally)

5,3,2,6

Canada goose (*Branta canadensis*)

A,B,G

C, m

3,2a,4,5,7,12,11

White-fronted goose (*Anser albifrons*)

A,B,G

R, m

3,2a,4,5,7

Snow goose (*Chen hyperborea*)caerulescens

A,B,G

R, m

3,2a,5,4,7,12,11

Ross' goose (*Chen rossii*)

A,B,G

A, m

4,3

Mallard (*Anas platyrhynchos*)

A,B,G

C, yl, B

3,2,5,4,1a,6,11

Gadwall (*Anas strepera*)strepera

A,B,G

FC, yl, B

3,2,5,4,11a,6

Pintail (*Anas acuta*)

A,B,G

C, m

3,2,5,4,11,12,8,6,10,13

Green-winged teal (*Anas crecca*)

A,B

C, m

3,2,5,6,11a

Blue-winged teal (*Anas discors*)

A,B

U, m

3,2,4,5,6,11a,12

Cinnamon teal (*Anas cyanoptera*)

A,B

C, sr, B

3,2,5,6,11a

European widgeon (*Anas penelope*)

A,B,G

R, m

6,3,4,5,11,12



C-4

# BIRDS (Continued)

|                                                   | Habitat<br>Types | Abundance &<br>Occurrence | Foods (in decreasing<br>order of importance) |
|---------------------------------------------------|------------------|---------------------------|----------------------------------------------|
| American widgeon ( <i>Anas americana</i> )        | A,B,G            | C, m                      | 3,2,4,5,11,6,12                              |
| Northern shovier ( <i>Anas clypeata</i> )         | A,B              | FC, m                     | 3,2,5,11,6,8,12                              |
| Wood duck ( <i>Aix sponsa</i> )                   | A,B,C            | R, yl, B                  | 3,2,1a,5,6,7,14                              |
| Redhead ( <i>Aythya americana</i> )               | A,B              | FC, m                     | 3,2,5,6,7,11                                 |
| Ring-necked duck ( <i>Aythya collaris</i> )       | A,B              | U, m                      | 3,2,5,11,6,7,12                              |
| Canvasback ( <i>Aythya valisineria</i> )          | A,B              | U, m                      | 3,2,5,11a,6,8                                |
| Lesser scaup ( <i>Aythya affinis</i> )            | A,B              | FC, wr                    | 3,2,11a,12,6                                 |
| Common goldeneye ( <i>Bucephala clangula</i> )    | A,B              | U, m                      | 12,6,11,3,8                                  |
| Bufflehead ( <i>Bucephala albeola</i> )           | A,B              | C, wr                     | 6,12,11a,3,2,8                               |
| Surf scoter ( <i>Melanitta perspicillata</i> )    | A,B              | A, m                      | 3,11,12,6,8                                  |
| Ruddy duck ( <i>Oxyura jamaicensis</i> )          | A,B              | C, yl, B                  | 3,6,2,11a,5,12                               |
| Common merganser ( <i>Mergus merganser</i> )      | A,B              | FC, wr                    | 8,12,10,6,11a                                |
| Red-breasted merganser ( <i>Mergus serrator</i> ) | AIB              | R, m                      | 8,12,10,6,11a                                |

## Falconiformes

|                                                                      |               |               |                  |
|----------------------------------------------------------------------|---------------|---------------|------------------|
| Turkey vulture ( <i>Cathartes aura</i> )                             | B,C,D,E,F,G,I | C, sr, B      | 15c              |
| White-tailed kite ( <i>Elanus leucurus</i> ) Black-Shouldered Kite?  | C,D,E         | A, m          | 9,10,7           |
| Goshawk ( <i>Accipiter gentilis</i> ) <i>gentilis</i>                | C*            | U, yl, B      | 16b+c,15,7,10    |
| Sharp-shinned hawk ( <i>Accipiter striatus</i> )                     | C             | FC, yl, B     | 16,15,7,10       |
| Cooper's hawk ( <i>Accipiter cooperi</i> ) <i>cooperii</i>           | C             | U, yl, B      | 16b+c,15,7,10    |
| Red-tailed hawk ( <i>Buteo jamaicensis</i> )                         | C,D,E,F,G,H,I | C, yl, B      | 15,7,16,10,9,12  |
| Red-shouldered hawk ( <i>Buteo lineatus</i> )                        | C,D           | R, m          | 15a+b,9,16a      |
| Swainson's hawk ( <i>Buteo swainsoni</i> )                           | B,C,D,E,F,G,H | U, sr, B      | 15a+b,7,9,16     |
| Rough-legged hawk ( <i>Buteo lagopus</i> )                           | C,D,E,F,G,H   | C, wr         | 15a+b,7,16,10,12 |
| Ferruginous hawk ( <i>Buteo regalis</i> )                            | C,D,E,F,G,H   | U, wr         | 15a+b,7,16,9     |
| Marsh hawk ( <i>Circus cyaneus</i> ) Northern Harrier <i>cyaneus</i> | B,C,G         | C, yl, B      | 16,15a+b,10,7,12 |
| Golden eagle ( <i>Aquila chrysaetos</i> )                            | B,C,D,E,F,G,H | FC, yl, B     | 15,9,16          |
| Bald eagle ( <i>Haliaeetus leucocephalus</i> )                       | A             | R, wr         | 8                |
| Osprey ( <i>Pandion haliaetus</i> )                                  | A             | U, sr, B      | 8                |
| Prairie falcon ( <i>Falco mexicanus</i> )                            | B,C,D,E,F,G   | FC, yl, B     | 16,15,7          |
| Peregrine falcon ( <i>Falco peregrinus</i> ) <i>peregrinus</i>       | E,F           | R, T (winter) | 16,15,7          |
| Pigeon hawk ( <i>Falco columbarius</i> ) Merlin                      | B,C,D,E,F,G,H | R, wr         | 16,15a,7         |
| American kestrel ( <i>Falco sparverius</i> )                         | B,C,D,E,F,G,H | C, yl, B      | 7,15a,16a+c,9,10 |

## Galliformes

|                                                     |             |             |                   |
|-----------------------------------------------------|-------------|-------------|-------------------|
| California quail ( <i>Lophortyx californicus</i> )  | B,C,D,E,F,G | C, yl, B    | 2,5,1a,7,4        |
| Mountain quail ( <i>Oreortyx pictus</i> )           | C*          | U, wr       | 2,5,1a,7          |
| Ring-necked pheasant ( <i>Phasianus colchicus</i> ) | B,C,G       | U (planted) | 2a,7,13a,4,10,11a |
| Chukar ( <i>Alectoris graeca</i> ) <i>chukar</i>    | D,E,F       | FC, yl, B   | 5, 2,1a           |

## BIRDS (Continued)

Gruiformes

|                                                         |       |           |                       |
|---------------------------------------------------------|-------|-----------|-----------------------|
| Sandhill crane ( <i>Grus canadensis</i> )               | B,D,G | R, wr     | 5,2a,7,4,11a,10,1a,9  |
| Virginia rail ( <i>Rallus limicola</i> )                | B     | FC, yl, B | 7,6,11a,14,3a,12      |
| Sora ( <i>Porzana carolina</i> )                        | B     | FC, yl, B | 3,6,7,11a,14,2,12     |
| Yellow rail ( <i>Coturnicops noveboracensis</i> )       | B     | R, sr, B  | 6,7,11a,3,5,2,14,12   |
| Common gallinule ( <i>Gallinula chloropus</i> )         | A,B   | R, sr, B  | 6,11a,3a,2a,5a,13b,14 |
| American coot ( <i>Pulica americana</i> ) <i>Fulica</i> | A,B   | C, yl, B  | 3,2,6,12,11,14        |

Charadriiformes

|                                                                   |         |           |                         |
|-------------------------------------------------------------------|---------|-----------|-------------------------|
| Semi-palmated plover ( <i>Charadrius semipalmatus</i> )           | B       | R, m      | 6,13b,12,11             |
| Snowy plover ( <i>Charadrius alexandrinus</i> )                   | B       | R, wr     | 6,13b,12,11             |
| Killdeer ( <i>Charadrius vociferus</i> )                          | B,G     | C, yl, B  | 7,6,11a                 |
| Mountain plover ( <i>Charadrius montanus</i> )                    | C,D     | R, m      | 6,13b,12,11             |
| Black-bellied plover ( <i>Squatarola squatarola</i> )             | B       | A, m      | 6,13b,12,11             |
| Common snipe ( <i>Capella gallinago</i> )                         | B       | FC, yl, B | 6,7,12,13b,11a,8        |
| Long-billed curlew ( <i>Numenius americanus</i> )                 | B,D     | R, m      | 11a,6,7,12,13a,14       |
| Whimbrel ( <i>Numenius phaeopus</i> )                             | B       | R, m      | 6,7,12,11,13b           |
| Marbled godwit ( <i>Limosa fedoa</i> )                            | A,B     | R, m      | 3,6,7,12,11             |
| Spotted sandpiper ( <i>Actitis macularia</i> )                    | B,C     | C, sr, B  | 6,7,12,11,13b           |
| Solitary sandpiper ( <i>Tringa solitaria</i> )                    | B       | U, m      | 6,7,12,11,13b           |
| Willet ( <i>Catoptrophorus semipalmatus</i> )                     | B       | U, m      | 6,13b,12,13a,B          |
| Greater yellowlegs ( <i>Totanus melanoleucus</i> ) <i>Totanus</i> | B       | U, m      | 8,6,7,11a,13b,12        |
| Lesser yellowlegs ( <i>Totanus flavipes</i> ) <i>Tringa</i>       | B       | A, m      | 7,6,8,12,11a,13b        |
| Least sandpiper ( <i>Calidris minutilla</i> ) <i>minutilla</i>    | A,B     | U, wr     | 6,7,12,11,13b           |
| Pectoral sandpiper ( <i>Erolia melanotos</i> )                    | A,B     | R, m      | 6,7,12,11,13,3          |
| Dunlin ( <i>Calidris alpina</i> )                                 | A,B     | R, m      | 6,7,12,11,13b           |
| Long-billed dowitcher ( <i>Limnodronus scolopaceus</i> )          | A,B     | U, wr     | 7,6,13b,11,12,3a,5      |
| Western sandpiper ( <i>Calidris mauri</i> )                       | A,B     | U, m      | 6,7,12,11,13b           |
| Baird's sandpiper ( <i>Calidris bairdi</i> )                      | A,B     | U, m      | 6,7,13b,12,11           |
| American avocet ( <i>Recurvirostra americana</i> )                | A,B     | C, sr, B  | 6,7,12,11,13b,3a        |
| Black-necked stilt <i>Himantopus mexicanus</i>                    | A,D     | FC, ar, B | 6,7,11a,8               |
| Wilson's phalarope ( <i>Steganopus tricolor</i> )                 | A,B     | C, sr, B  | 6,12,11a                |
| Northern phalarope ( <i>Lobipes lobatus</i> )                     | A,B     | U, m      | 6,12,11a                |
| California gull ( <i>Larus californicus</i> )                     | A,B,D,E | C, sr, B  | 8,7,10,11,16a+c,garbage |
| Ring-billed gull ( <i>Larus delawarensis</i> )                    | A,B,D,E | U, m      | 8,7,10,11,garbage       |
| Bonaparte's gull ( <i>Larus philadelphia</i> )                    | A,B     | R, m      | 8,7,10,11,4,garbage     |
| Sabine's gull ( <i>Xema sabini</i> )                              | A,B     | A, m      | 8,7,10,11,garbage       |
| Forster's tern ( <i>Sterna forsteri</i> )                         | A,B     | U, m      | 8,12,6                  |

## BIRDS (Continued)

|                                                          | Habitat<br>Types | Abundance &<br>Occurrence | Foods (in decreasing<br>order of importance) |
|----------------------------------------------------------|------------------|---------------------------|----------------------------------------------|
| 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

MarsupialiaOpossum (*Didelphis marsupialis*) virginiana

C R, N, yl 1a,2,15a,16c,7,15c

InsectivoraInyo shrew (*Sorex tenellus*)

C\* R, yl, B 7,6,14,13a,11,2

Vagrant shrew (*Sorex vagrans*)

C C, yl, B 7,6,14,13a,11,2

Northern water shrew (*Sorex palustris*)

A,B FC, yl, B 12,11,6,7

California mole (*Scapanus latimus*) Blind-Footed Mole latimus

C,D,E,F,G C, yl, B 13a,7,2b

ChiropteraLittle brown myotis bat (*Myotis lucifugus*)

C,D C,yl,N,H,B 7,6

Fringed myotis (*Myotis thysanodes*)

C,D,F C,yl,N,H,B 7,6

Long-eared myotis (*Myotis evotis*) evotis

C,D,F C,yl,N,H,B 7,6

California myotis (*Myotis californicus*)

C,D,F C,yl,N,H,B 7,6

Yuma myotis (*Myotis yumanensis*)

D,E,F C,yl,N,H,B 7,6

Long-legged myotis (*Myotis volans*)

C,D,E,F C,yl,N,H,B 7,6

Small-footed myotis (*Myotis subulatus*)

C,D,E,F FC,yl,N,H,B 7,6

Silver-haired bat (*Lasiurus noctivagus*)

C,F\* U, m, N 7,6

Western pipistrel (*Pipistrellus hesperus*)

C,F C,yl,N,H,B 7,6

Red bat (*Lasiurus borealis*)

C,D C, M, N 7,6

|                                                                  | <u>Habitat<br/>Types</u> | <u>Abundance &amp;<br/>Occurrence</u> | <u>Foods (in decreasing<br/>order of importance)</u> |
|------------------------------------------------------------------|--------------------------|---------------------------------------|------------------------------------------------------|
| <b>MAMMALS (Continued)</b>                                       |                          |                                       |                                                      |
| 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                                                  |
| <b>Carnivora</b>                                                 |                          |                                       |                                                      |
| 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                                    |
| Mink ( <i>Mustela vison</i> )                                    | C*                       | R,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 putorius</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                                          |
| <b>Rodentia</b>                                                  |                          |                                       |                                                      |
| 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                                      |
| Least chipmunk ( <i>Eutamias minimus</i> )                       | C,F*                     | C,yl,H,B                              | 2a,1a,5,7                                            |
| Merriam chipmunk ( <i>Eutamias merriami</i> )                    | C*                       | FC,yl,H,B                             | 2a,1a,5,7                                            |
| 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                                           |
| Great Basin pocket mouse ( <i>Perognathus narvus</i> )           | C,E,I                    | C,yl,N,H,B                            | 2a,1a,5a,4                                           |
| Canyon mouse ( <i>Peromyscus crinitus</i> )                      | F                        | C,yl,N,B                              | 2a,1a,7                                              |
| Brush mouse ( <i>Peromyscus boylei</i> )                         | C,E,F                    | C,yl,N,B                              | 1a,2a,7                                              |
| Pinyon mouse ( <i>Peromyscus truei</i> )                         | C,F*                     | C,yl,N,B                              | 1a,2a                                                |
| Deer mouse ( <i>Peromyscus maniculatus</i> )                     | B,C,D,E,F,G              | C,yl,N,B                              | 2a,1a,7                                              |
| Western harvest mouse ( <i>Reithrodontomys megalotis</i> )       | B,C,D,E,F                | C,yl,N,B                              | 2a,1a,5a,7                                           |
| Southern grasshopper mouse ( <i>Onychomys torridus</i> )         | E,F                      | C,yl,N,B                              | 7,9,15a                                              |
| Ord kangaroo rat ( <i>Dipodomys ordii</i> )                      | E,F                      | C,yl,N,B                              | 2a,5a,1a                                             |

## MAMMALS (Continued)

|                                                         | Habitat<br>Types | Abundance &<br>Occurrence | Foods (in decreasing<br>order of importance) |
|---------------------------------------------------------|------------------|---------------------------|----------------------------------------------|
| 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>Microdipodops pallidus</i> )   | E,F              | U,yI,N,B                  | 2a,5,1a                                      |
| Sagebrush vole ( <i>Lagurus aurtatus</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                                   |
| Mountain vole ( <i>Microtus montanus</i> )              | C*               | FC,yI,B                   | 1a+b,2a+b,5                                  |
| Long-tailed vole ( <i>Microtus longicaudus</i> )        | C,F*             | FC,YL,B                   | 5,1b,2b                                      |
| House mouse ( <i>Mus musculus</i> )                     | C,I              | C,yI,B                    | Anything edible                              |
| Desert woodrat ( <i>Neotoma lepida</i> ) <i>neotoma</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> ) <i>canadensis</i>   | C                | FC,yI,N,B                 | 1b,3b                                        |
| Porcupine ( <i>Erethizon dorsatum</i> )                 | C                | C,yI,N,B                  | 1a+b,2b,3b                                   |

## Lagomorpha

|                                                                  |           |        |           |
|------------------------------------------------------------------|-----------|--------|-----------|
| Blacktail jackrabbit ( <i>Lepus californicus</i> )               | C,D,E,F,G | C,yI,B | 2b,5,1b,4 |
| Desert cottontail ( <i>Sylvilagus auduboni</i> ) <i>auduboni</i> | C,D,E,F,G | C,yI,B | 2b,5,1b,4 |
| Whitetail jackrabbit ( <i>Lepus townsendii</i> )                 | C,F*      | A,wr   | 5,2b,1b   |

## Artiodactyla

|                                                                  |             |         |              |
|------------------------------------------------------------------|-------------|---------|--------------|
| 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      |
| Desert bighorn sheep ( <i>Ovis canadensis canadensis</i> )       | C,F*        | A,wr    | 5,2b,1b      |
| California bighorn sheep ( <i>Ovis canadensis californiana</i> ) | C,F*        | U,wr    | 5,2b,1b      |

## REPTILES

## Gekkonidae

|                                                               |   |            |      |
|---------------------------------------------------------------|---|------------|------|
| Desert banded gecko ( <i>Coleonyx variegatus variegatus</i> ) | F | U,yI,N,H,B | 7,14 |
|---------------------------------------------------------------|---|------------|------|

## Iguanidae

|                                                                  |   |           |                |
|------------------------------------------------------------------|---|-----------|----------------|
| 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        |
| Collared lizard ( <i>Crotaphytus collaris</i> )                  | F | FC,yI,H,B | 7,14,9,2b,1a+b |
| Leopard lizard ( <i>Crotaphytus wislizenii</i> ) <i>Gambel's</i> | F | FC,yI,H,B | 7,14,9,2b,1a+b |

## REPTILES (Continued)

|                                                                                                                                                                  | Habitat<br>Types | Abundance &<br>Occurrence | Foods (in decreasing<br>order of importance) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------|----------------------------------------------|
| Barred spiny lizard ( <i>Sceloporus magister transversus</i> )                                                                                                   | C,E,F,G          | Cyl,H,B                   | 7,14,2b,1a+b                                 |
| Great Basin fence lizard ( <i>Sceloporus occidentalis</i> ) - longipal. is esp. if you                                                                           | C,E,F            | Cyl,H,B                   | 7,14,2b,1a+b                                 |
| Sagebrush lizard ( <i>Sceloporus graciosus graciosus</i> ) - If you use Great Basin                                                                              | C,D,E,F          | Cyl,H,B                   | 7,14,9,2b,1a+b                               |
| Northern side-blotched lizard<br>( <i>Uta stansburiana stansburiana</i> ) it is Northern Sagebrush lizard                                                        | C,D,E,F          | Cyl,H,B                   | 7,14                                         |
| Zebra-tailed lizard ( <i>Callisaurus draconoides</i> ) Zebra-tail                                                                                                | E,F              | Cyl,H,B                   | 7,14,9,2b,1a+b                               |
| Southern desert horned lizard<br>( <i>Phrynosoma platyrhinos calidarium</i> )                                                                                    | E,F              | Cyl,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> has been collected in Bishop<br>Creek Drainage and most likely occurs near<br>mouth of most Eastern Sierra canyons     |                  |                           |                                              |
| Great Basin whiptail ( <i>Cnemidophorus tigris tigris</i> )                                                                                                      | C,D,E,F          | Cyl,H,B                   | 7,14,9                                       |
| <u>Anquididae</u> <i>Anquididae</i>                                                                                                                              |                  |                           |                                              |
| Sierra alligator lizard<br>( <i>Gerrhonotus coeruleus palmeri</i> ) <i>Elegans coerulea</i>                                                                      | C,F              | R,yI,H,B                  | 7,14,11a                                     |
| Southern Alligator Lizard <i>Elegans multicarinata</i>                                                                                                           |                  |                           |                                              |
| <u>Boidae</u>                                                                                                                                                    |                  |                           |                                              |
| Pacific rubber boa ( <i>Charina bottae bottae</i> )                                                                                                              | C                | R,yI,H,B                  | 15a,9                                        |
| <u>Colubridae</u>                                                                                                                                                |                  |                           |                                              |
| Western yellow-bellied racer Western Yellowbelly Racer <i>Coluber mormon</i><br>( <i>Coluber constrictor mormon</i> )                                            | C                | R,yI,H,B                  | 9,15a,10                                     |
| Red racer ( <i>Masticophis flagellum piceus</i> ) Red Coach whip                                                                                                 | C,D,E,F,G        | Cyl,H,B                   | 9,15a,10,16a,b,c,15c                         |
| Striped whipsnake ( <i>Masticophis taenianus</i> )                                                                                                               | C,D,F            | FC,yI,H,B                 | 9,15a,10,16,7,15c                            |
| Mojave patch-nosed snake<br>( <i>Salvadora hexalepis mojavensis</i> ) <i>Salvadora mojavensis</i>                                                                | D,E,F            | R,yI,H,B                  | 9,15a                                        |
| Great Basin gopher snake<br>( <i>Pituophis melanoleucus deserticola</i> )                                                                                        | C,D,E,F,G        | Cyl,H,B                   | 15a+b,16,9                                   |
| California kingsnake<br>( <i>Lampropeltis getulus californiae</i> ) <i>getulus</i>                                                                               | B,C,D,E,F,G      | FC,yI,H,B                 | 9,16c,15a,10,16aFb                           |
| Glossy snake <i>Arizona elegans</i> This snake is common,<br>at least in the southern<br>Queens Valley. I have collection records from 5 mi. N. of Independence. |                  |                           |                                              |

|                                                                                                      | Habitat<br>Types                         | Abundance &<br>Occurrence | Foods (in decreasing<br>order of importance) |
|------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------|----------------------------------------------|
| <u>Leptotyphlopidae</u>                                                                              |                                          |                           |                                              |
| Western Blind Snake <u>Leptotyphlops humilis</u>                                                     |                                          |                           |                                              |
| Most certainly found throughout EIR area.<br>Collected near Independence.                            |                                          |                           |                                              |
| REPTILES (Continued)                                                                                 |                                          |                           |                                              |
| Western long-nosed snake<br>( <u>Rhinocheilus lecontei lecontei</u> )                                | D,E,F                                    | U,y,l,N,H,B               | 9,15a,7                                      |
| Sierra garter snake ( <u>Thamnophis couchi couchi</u> )                                              | C,F*                                     | R,y,l,H,B                 | 8,10,13a,7,6,15a,16                          |
| Mountain garter snake ( <u>Thamnophis elegans elegans</u> )                                          | C*                                       | U,y,l,H,B                 | 8,10,13a,7,6,15a,16                          |
| California red-sided garter snake - Found here?<br>( <u>Thamnophis sirtalis infernalis</u> )         | B,C,G                                    | U,y,l,H,B                 | 8,10,13a,7,6,15a,16                          |
| Western ground snake ( <u>Sonora semiannulata</u> ) Ground Snake                                     | F                                        | R,y,l,N,H,B               | 7,14                                         |
| Desert night snake ( <u>Hypsiglena torquata deserticola</u> ) <u>Hypsiglena torquata deserticola</u> | C,E,F                                    | R,y,l,N,H,B               | 9,10,7,6                                     |
| <u>Viperidae</u>                                                                                     |                                          |                           |                                              |
| Mojave desert sidewinder Speckled Rattlesnake <u>Crotalus mitchelli</u>                              | Added on p. 11-20 of EIR<br>B,F<br>C,E,F | FC,y,l,N,H,B<br>U,y,l,H,B | 15a,9,16a+b<br>15a,16a+b,9                   |
| ( <u>Crotalus cerastes cerastes</u> ) Mojave Rattlesnake <u>Crotalus scutulatus</u>                  |                                          |                           |                                              |
| Great Basin rattlesnake ( <u>Crotalus viridis lutosus</u> )                                          |                                          |                           |                                              |
| AMPHIBIANS                                                                                           |                                          |                           |                                              |
| <u>Pelobatidae</u>                                                                                   |                                          |                           |                                              |
| Great Basin spadefoot toad ( <u>Scaphiopus intermontanus</u> )                                       | B,C,D,E                                  | FC,y,l,N,H,B              | 7                                            |
| <u>Bufonidae</u>                                                                                     |                                          |                           |                                              |
| California toad ( <u>Bufo boreas halophilus</u> )                                                    | B,C                                      | R,y,l,N,H,B               | 7,12,11a,14                                  |
| Red-spotted toad <u>Bufo punctatus</u>                                                               |                                          |                           |                                              |
| <u>Hylidae</u>                                                                                       |                                          |                           |                                              |
| Pacific treefrog ( <u>Hyla regilla</u> ) <u>regilla</u>                                              | B,C                                      | R,y,l,H,B                 | 7,14,11a                                     |
| <u>Ranidae</u>                                                                                       |                                          |                           |                                              |
| Mountain yellow-legged frog ( <u>Rana muscosa</u> ) Not likely in area of EIR                        | C*                                       | R,y,l,H,B                 | 7,11a                                        |
| Leopard frog ( <u>Rana pipiens</u> )                                                                 | A,B,C,D                                  | U,y,l,H,B                 | 7,14,11a                                     |
| Bullfrog ( <u>Rana catesbeiana</u> )                                                                 | A,B                                      | C,y,l,H,B                 | 7,8,10,9,16a,15a                             |
| FISHES                                                                                               |                                          |                           |                                              |
| <u>Salmonidae</u>                                                                                    |                                          |                           |                                              |
| Rainbow trout ( <u>Salmo gairdneri</u> )                                                             |                                          |                           |                                              |
| Brown trout ( <u>Salmo trutta</u> )                                                                  |                                          |                           |                                              |





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## RESPONSES TO COMMENTS

### LETTER C18

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#### RESPONSE C18-1

*This comment is actually an introductory statement. No response is necessary.*

#### RESPONSE C18-2

The saltcedar problem in Owens Valley is acknowledged and discussed in Chapter 10, Vegetation, of the Draft EIR. Further discussion of saltcedar control can be found in response to master comment VE-7.

The second part of this comment concerns the fact that not all species thrive in wetland conditions and may actually be harmed by them. Wetland creation, restoration, or enhancement projects considered in the proposed project would take place at sites that were previously wet since those places would be easier to restore to earlier conditions. In any case, any impacts to such sites would be assessed prior to any creation/restoration efforts.

#### RESPONSE C18-3

This amphibian has been added to the revised list of animals found in Appendix C-4 to this Response to Comments document.

#### RESPONSE C18-4

Comment is correct and noted. Text on page 11-13 pertaining to the ring-necked pheasant relates to pre-project conditions.

RESPONSE C18-5

Comment noted. No further response is required.

RESPONSE C18-6

The text on page 11-16 has been changed to read "Yellow-rumped warbler".

RESPONSE C18-7

Comment noted. No further response is required.

RESPONSE C18-8

Comment noted. See response C18-4 above.

RESPONSE C18-9

Comment noted. Thank you for your interest and participation in the EIR process.

RESPONSE C18-10

The estimate of 30 reptile species is a reflection of pre-project conditions. Since 1970, two species of rattlesnake have been added to the list as shown in Table 11-4 bringing the total to 32 for the years 1970 to 1990. It is also recognized that there is a difference between not occurring and being unreported.

RESPONSE C18-11

While the California toad is not strictly nocturnal, it is often very active on warm nights at lower elevations. It does tend to be diurnal at higher elevations.

RESPONSE C18-12

This reference has been added to the Bibliography contained in Appendix C-3 to this Response to Comments document.

RESPONSE C18-13

Changes have been made to the list of animals and a corrected, updated version is found in Appendix C-4 to this Response to Comments document.

RESPONSE C18-14

Comment noted, no response necessary. The Inyo Mountains are not part of the valley floor.

RESPONSE C18-15

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



**Letter C19**

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**Valley Industry and Commerce Association**





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\* PAST PRESIDENT

January 28, 1991

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

Dear Mr. Davis:

This letter is to express a concern of the Valley Industry and Commerce Association's Water Committee regarding the draft Environmental Impact Report entitled "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct." It states, on page 5-12, that based on an assumed long term pumping rate of 110,000 acre feet per year, the additional water available for export is estimated to be only about 42,000 acre feet compared to the "no project" alternative.

If environmental protection provisions result in lower long term pumping rates, it appears that any reduction will directly reduce exports rather than the level of water used on City owned lands in the Owens Valley.

We are of the opinion that the City of Los Angeles should request a change in the proposed agreement to assure that the water available for export is not diminished. Any reduction in pumping should be made up by a corresponding reduction in water used on City lands in the Owens Valley. It is difficult to justify irrigating alfalfa on portions of City owned lands when the municipal and industrial water needs of the City are faced with an uncertain and possibly inadequate quality water supply.

Sincerely,

George Wein  
Chair, Water Committee





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**RESPONSES TO COMMENTS  
LETTER C19**

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**RESPONSE C19-1**

Comment noted. No further response is required.

**RESPONSE C19-2**

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 C20**

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**The Mono Lake Committee**

1. The first part of the document is a list of the names of the people who were present at the meeting. The names are listed in alphabetical order. The names are: John Doe, Jane Smith, and Bob Johnson.



LETTER C-20

# THE MONO LAKE COMMITTEE

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(619) 647-6595

1355 Westwood Blvd./Suite 6  
Los Angeles, CA 90024  
(213) 477-8229

January 27, 1991

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

Dear Mr. Davis,

The Mono Lake Committee (MLC) has reviewed the 1990 draft EIR (DEIR) entitled "Water from the Owens Valley to Supply the Second Los Angeles Aqueduct."

The MLC supports the efforts by Inyo County and the City of Los Angeles and its Department of Water and Power (DWP) to reach a fair and practical agreement on the long term management of groundwater pumping in the Owens Valley. It is our hope that an agreement can be reached that protects and enhances the Eastern Sierra environment while providing for the real water needs of Los Angeles.

However, the MLC has identified three areas of major concern with regard to the DEIR that will be detailed below:

I) "The project" as it is currently defined in the DEIR may be based on an unsubstantiated premise that the Mono Basin EIR, now being prepared under the direction of the State Water Resources Control Board (SWRCB), will adequately assess and mitigate the impacts to Mono County of increased surface diversions from the Mono Basin into the 2nd barrel of the aqueduct.

We do not disagree with the approach of separation of responsibility between the two documents to define appropriate environmental standards for each geographical area. However, we are concerned that the failure of the Mono Basin EIR to produce the results expected could undermine the EIR process for the Owens Valley.

II) We are concerned that the description of "pre-project" conditions in the Owens Valley and the disclosure of significant cumulative impacts in the Owens Valley is insufficient to adequately assess and provide mitigation for the operation of the 2nd barrel of the aqueduct.

III) We are concerned that the description of alternative water supplies available to Los Angeles in the DEIR is deficient, preventing an accurate analysis of the feasibility of an



environmentally superior alternative.

## DISCUSSION

### I. A key element of the project description in the Owens DEIR is:

"All water management practices and facilities that were implemented or constructed in Owens Valley to supply water to the second barrel of the aqueduct, including an increase in the amount of surface water diverted for export" (p.S-5).

The action that has essentially driven preparation of this and previous EIR's is the construction of the 2nd barrel of the aqueduct in 1970, and the resultant impacts from increased diversions of ground and surface waters to fill the second aqueduct. The water sources for the 2nd aqueduct included increased surface water diversions from the Mono Basin. In rejecting the second EIR in 1981, the Court found that:

"An EIR may not define a purpose for a project and then remove from consideration those matters necessary to the assessment of whether the purpose can be achieved. Since the FEIR removes the availability of surface water from examination it fails the legal duty and the mandate of this court to provide an informed and accurate analysis of the project and its impacts." (County of Inyo v. City of Los Angeles (3d Dist. 1981) 124 Cal.App.3d 1, 7-9.)"

5

However, the draft 1990 Owens EIR states it will not address the impacts of increased surface water diversions from completion of the 2nd barrel of the aqueduct on the Mono Basin and Long Valley, saying that "Water gathering by LADWP in Mono County is currently subject to litigation" (p.1-5), and that these activities will be addressed in the Mono Basin SWRCB EIR.

As the Mono Lake Committee became aware of the separate scope of two EIRs, we accepted that each document would define the impacts to the two geographical areas separately as well as define appropriate mitigation for those impacts. Part of the reasoning for this was expressed in a letter by Tony Rossmann to the SWRCB on their "Notice of Preparation" (NOP) of a Mono Basin EIR (2-6-90):

"In assessing the impacts of any proposed Board action on Los Angeles' overall water supply, the Board will necessarily be required to make the best possible assessment of Owens Valley water availability to Los Angeles. But the Board must carefully accept as a given that Owens Valley exports will be governed by constraints necessary to protect the environment there, just as Inyo County and Los Angeles in their agreements and proposed EIR have assumed and will assume that decreases in Mono Basin exports may be necessary for protection of that basin, and that such

decreases will not influence the management of Owens Valley resources."

While this separation of analyses is theoretically expedient, it does not reflect the reality of the scope of the two EIR's as is currently being defined:

It is unsupported that the Mono Basin EIR will adequately evaluate and mitigate the impacts to Mono County of increased surface diversions from the Mono Basin into the 2nd barrel of the aqueduct. This is because the planning documents for the Mono Basin EIR have thus far not appropriately defined the baseline conditions from which to evaluate project impacts and prescribe appropriate mitigations.

The MLC has repeatedly requested a clarification of this issue in our comments on the "Scope" and "NOP" of a Mono Basin EIR and on the "Revised Workplans" of the SWRCB contractor. (Please see attached SWRCB documents and letters from MLC/Audubon to the SWRCB). The NOP defines the "project" as setting stream flow and lake level standards (pg.4), and is thus focussed on the impacts of the reduction in surface water diversions from the Mono Basin (and not the impacts from increased diversions since 1941 or 1970) on Mono Basin and downstream waters and resources.

The NOP and revised workplans go on to state that project "alternatives" will be compared to historic pre-diversion conditions. However, it is unclear whether a distinction will be made between pre- and post-1970 conditions. Furthermore, the proposed EIR falls short of using pre-1941 or pre-1970 conditions as a baseline from which to measure appropriate mitigations. In fact, the revised workplans (pg. 5-6) define mitigation around an August, 1989 baseline.

Racanelli (182 Cal.App.3d 82) requires a consideration of a "without project" scenario as one defined historic or "natural" conditions, even if other projects already affecting the environment are in place. Even if "upstream" projects evolved out of separate decisions, conditions prior to their enactment must be described and their impacts to the whole must be considered in a cumulative analysis.

In addition, the SWRCB EIR's fishery studies now cover not only streams tributary to Mono Lake, but also reach down into southern Mono and northern Inyo counties with stream, riparian, fishery and land management studies in the Upper and Middle Owens River and Crowley Reservoir. The MLC supported the inclusion of the Upper Owens River and Crowley Reservoir as part of the environment affected by DWP's Mono Basin water export management. However, we again question whether the use of 1989 as a baseline is appropriate to determine mitigation measures. While the above

mentioned studies will attempt to describe historic conditions, their emphasis will be to describe existing habitat conditions and streamflow needs. Therefore, the assertion that the impacts to all of Mono County will be addressed in the Mono Basin EIR is premature.

8

We wonder whether the SWRCB and Inyo County have coordinated their processes of defining the geographical areas to be assessed in their respective work plans. We find it curious that after either agency seemingly had defined a separation of scopes, that the Mono Basin EIR studies reach down into the Middle Owens River (from Pleasant Valley to Tinnemaha reservoirs) in Inyo County. Yet this section of the Owens River is a focus of analysis in the Owens DEIR. Is the Mono Basin EIR's focus on the Middle Owens consistent with the stated goals of the Owens DEIR?

Furthermore, the Mono Basin EIR has failed thus far to characterize the "no project" alternative as the water flows which meet the conditions of Fish and Game Code section 5937. We do not know if the illegality of surface water diversions in violation of 5937 will be properly characterized, (which were facilitated and increased by completion of the second barrel of the aqueduct in 1970) so that a proper "balancing" of the true costs vs. benefits to the City of Los Angeles can be made. (Please see our letters to SWRCB of 10-25-89, pg.14; 3-15-90, pg.2-3, 5; 11-20-90, pg.5, 7-9.)

9

In sum, it appears clear that the 3rd District Court in its rejection of the 1978 Owens EIR, dictated that somebody must address the impacts from increased surface water diversions into the 2nd barrel, from Mono Basin south. While we concur that the Mono Basin EIR could accomplish this task for Mono County, it does not appear that the outcome intended by the court will be the result. This raises substantial problems for everyone.

II. We Believe that the DEIR is Deficient in its Description of "Pre-Project" Conditions, and Does Not Adequately Analyze and Mitigate for Cumulative Impacts Within the Defined Scope of the Project.

10

We are concerned that an accurate discussion of significant and cumulative impacts is precluded by insufficient pre-project descriptions of the environment. In several instances, the DEIR asserts that sufficient data does not exist to afford an accurate evaluation of pre-project conditions (see pages 9-50, 10-28, 10-50, 11-5, 11-27, 11-39).

11

With regards to pre-project descriptions of vegetation and wildlife, we note that aerial photos were used for "some findings in this analysis" (p.10-28), but that "aerial photos alone are not adequate to base conclusions regarding cause and effect vegetation changes." However, we wonder if the use of aerial



photos was too readily dismissed. Aerial photos could be used along with proven wildlife habitat evaluation methodology to assess the availability of habitat that existed prior to the project, from which conclusions regarding wildlife population levels can be derived. In the Mono Basin EIR, extensive study of aerial photos is being completed to document historic conditions, and to assess changes that have occurred as a result of DWP's water diversions. The Habitat Evaluation Procedure (HEP) is an example of methodology that can be used to relate habitats to animal populations.

However, with respect to the lower Owens River, the DEIR concludes, despite a claimed lack of sufficient data on pre-project conditions, that significant impacts to the environment have not occurred and therefore need not be mitigated for (p.9-50, 10-50). Isn't it premature to conclude that significant impacts have not occurred, without adequate data to make this assertion? Moreover, it is difficult for the public and other agencies to assess cumulative changes that have occurred without an accurate description of pre-project conditions.

With respect to post-project conditions, the DEIR acknowledges that there have been adverse impacts since 1940 from using the Owens River like a pipeline to convey fluctuating and destructively large amounts of aqueduct water (p.9-5, 9-6). However, the DEIR claims that insufficient evidence exists to conclude that there have been impacts to the Owens Valley since 1970 from increased surface water diversions to supply the 2nd aqueduct.

We know, for instance, that on the upper Owens River, there is evidence that since 1970, the increased flows and dramatic fluctuations in amount of water diverted southward have resulted in severe bank erosion, loss of undercut banks and riparian habitat, increased sedimentation, and overall loss of the superb fish habitat that once existed along this stretch of the river. DFG has documented similar impacts on the middle and lower Owens River. Yet the DEIR states (p.9-50, 10-50) that, despite documentation to the contrary, "insufficient information" is available to document such impacts. The DEIR goes on to conclude (p.9-50, 10-50) that:

"it is believed that increased flow rates have not resulted in a significant adverse impact in comparison to pre-project conditions."

The DEIR further concludes on page 10-50 that:

"Flow releases to the Owens River has resulted in a beneficial impact to riparian vegetation and wildlife, as compared to pre-project conditions."

14

We question how the DEIR can make such conclusions that no adverse impacts, and even **beneficial** impacts have occurred, based on "insufficient information" and without an adequate analysis of the existing data.

In the discussion of cumulative impacts, as required by CEQA, the DEIR (p.17-5) states that:

"Cumulative impacts, if applicable, are discussed in the pre project setting sections of Chapters 8 through 16."

This relegation of discussion of cumulative impacts to various chapters by definition fragments the discussion and analysis of the cumulative impacts of the proposed project upon the environment. Furthermore, discussion of cumulative impacts on each of the affected resources in the chapters referenced is obscured by such a scattered treatment.

15

The EIR further fragments the cumulative significance of impacts by analyzing **each** impact separately in Chapters 8 through 16. This treatment is constructive in that specific mitigation measures can then be prescribed for specific impacts. However, the problem with this approach is that many impacts are perhaps too hastily deemed to be insignificant. If analyzed in a cumulative fashion, these same impacts might well be considered significant, and would require appropriate mitigations. This fragmented treatment of impacts runs the risk of minimizing their cumulative significance **and** understating the need for further mitigations for DWP's water gathering practices in the Owens Valley. As defined by CEQA, "cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (emphasis added) (Sec. 15355).

A cumulative analysis which understates information concerning the severity and significance of cumulative impacts "impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of a project, the necessity for mitigation measures, and the appropriateness of project approval." (Citizens to Preserve the Ojai, supra, 176 Cal.App.3d at 431. We believe that the importance to **any** EIR of an adequate discussion and analysis of cumulative impacts cannot be overstated.

16

The "agreement" lists as the primary fish and wildlife mitigation feature for the project the implementation of a "Lower Owens River project." Given the central importance of this restoration project to the evaluation of the adequacy of mitigation, we wonder why the Lower Owens River project is not more fully described.

17

Furthermore, the DEIR should acknowledge that there are non-discretionary legal requirements under the Fish and Game Codes which mandate that DWP maintain flows necessary to keep fish in

good condition in the Owens River downstream from the Los Angeles Aqueduct intake dam. Any additional mitigation as part of the proposed Lower Owens River project should be viewed as above and beyond these legally mandated flow requirements.

#### IV. WATER SUPPLY ALTERNATIVES

The draft EIR fails to present a comprehensive disclosure of the alternative water supplies available to the City of Los Angeles. Without such a discussion it is impossible for the public to evaluate whether the environmental standards or mitigations proposed for continued groundwater pumping under the "agreement" are appropriate given the choices the City has to provide for its real water needs.

The following is a discussion of why the EIR's chapters on the availability of water to the City through water conservation and water reclamation is insufficient and, in some cases, inaccurate.

#### 3.3 WATER CONSERVATION

The DWP list of water conservation programs (table 3-4) is comprehensive, yet there is no indication of the level of enforcement, effectiveness or commitment to implementation of any of these programs in the Draft EIR. In order for these programs to work, they must first contain mechanisms for implementation. The programs must then be carried out and monitored for their success. In the Draft EIR, one would expect to see not only a list of water conservation programs but also plans for effectively bringing the goals of the programs to fruition. Listing programs is not the same as implementing them.

An example of a program which was listed in the Draft EIR but was not actually enforced is DWP's audit. We know from a Los Angeles Times article, dated April 22, 1990, that DWP's audit of its 250 largest users was neither monitored nor enforced. Many large water users did not respond to DWP's surveys. In the surveys which were actually returned, many estimates were drastically incomplete or inaccurate. Again, in order to evaluate DWP's water conservation program, the enforcement mechanisms and their effectiveness must be revealed.

In the description of the 1988 Water Conservation Ordinance to Reduce Sewer Flows (p. 3-6), the Draft EIR summarizes the ordinance's main requirements. Unfortunately, neither DWP nor the City of Los Angeles has any idea of the extent of the compliance.

It is interesting to note that during the last drought (1977-78), the people of Los Angeles reduced their water consumption by

20 19%. During the current drought, despite implementation of the 1988 Conservation Ordinance and the enactment of additional voluntary conservation programs, residents of Los Angeles could barely maintain a 10% reduction. In fact, during the Fall of 1990, conservation efforts hovered between 5-7%.

On pages 3-8, the Draft EIR states that free conservation kits were mailed to 1.25 million customers and that 1.3 million low-flow shower heads were distributed. This does not necessarily mean the kits were installed and used. According to a Los Angeles Times article, dated January 4, 1991, DWP customers have failed for the third straight month to reach the 10% reduction in water use required by Phase 1 of the Emergency Water Conservation Ordinance. Conservation has hovered between 5 and 7%. In contrast, water conservation efforts in San Jose, San Francisco, and the East Bay Municipal Utility District (EBMUD) service areas range from a 15-25% reduction in water use.

On page 3-8, a residential retrofit program is described. Although the program was planned to begin in 1990, the retrofit proposal continues to languish the Los Angeles City Council's Budget and Finance Committee. To date, no action has been taken.

21 The section on Residential Users (pp. 3-8 to 3-9) fails to include information on the formal negotiations now being conducted between large urban water districts (including DWP) and environmentalists on "Best Management Practices", part of the Bay/Delta hearings conducted by the State Water Resources Control Board. In the Memorandum of Understanding, water agencies would commit to implementing all conservation measures which are economically feasible and socially acceptable. Included in the BMP's will be specific instructions as to what constitutes acceptable implementation. Potential implementation for water conservation could be substantially affected by the implementation instructions and by additional BMP's listed in the future.

22 The Draft EIR also fails to take into account the potential water savings brought about by AB 325. Enacted in 1990, AB 325 established a task force to develop a model landscape ordinance for all local water agencies. Results from the task force could dramatically alter Los Angeles' current ordinance, which now only applies to new construction. A more comprehensive Los Angeles City ordinance is still in the drafting stages.

23 Page 3-11 focuses on business and industrial users. In comparison to San Jose and the East Bay Municipal Utility District (EBMUD), Los Angeles has not made any effort to increase the water efficiency of its commercial and industrial users. In 1988, EBMUD requested its industrial customers to reduce water use 9% from 1986 levels. Customers actually cut back consumption by 29%. In 1989, EBMUD requested an industrial cut back of 5%.

The result was a 26% reduction.

In San Jose, 15 diverse companies were targeted, ranging from electronics manufacturing and metal finishing to paper and food processing. Combined water consumption of these 15 companies was reduced to more than 1 billion gallons per year by conservation measures alone, at an annual savings of \$2 million.

Looking at DWP's \$8 million allocation for water conservation (p. 3-11), the Draft EIR fails to compare this figure with other pertinent information. For instance, the \$8 million figure does not take into account the fact that DWP benefits from the Metropolitan Water District's Conservation Credits Program and its Local Projects funding. According to MWD's 1990 Regional Urban Water Management Plan, DWP received \$190,000 last year from the Conservation Credits Program alone.

We are curious whether this EIR adopts LADWP's position (expressed most recently by Tom Birmingham for LADWP in Eldorado Superior Court, 1-17-91) that water conservation is only a means of "managing water demand" (EIR 3-40) and cannot be viewed as a replacement water source for the City? The EIR claims that "by increasing the efficiency of water use, the need for new source development is reduced or delayed." (EIR 3-4, 6-21, emphasis ours.) However, logic would dictate that if Los Angeles doesn't use the water, it doesn't need to take it.

Finally, we incorporate by reference the Decennial Survey of the Los Angeles Department of Water and Power conducted by Richard Metzler and Associates in March, 1990. We have enclosed a number of pages from the survey which point out the ineffectiveness of DWP at implementing and monitoring conservation programs (see pages 115, 119-120, 154-155, 264).

### 6.3 ALTERNATIVE WATER SUPPLIES FOR LOS ANGELES

#### Conservation

According to the Draft EIR, "(a)t present, Los Angeles does not have a specific growth management plan" (p.6-20). However, it does indicate that the City could institute one in the future, and the EIR states, "Los Angeles could choose to limit growth to halt water demand." In the past, Los Angeles has allowed massive growth to take place, with scant regard for infrastructure needs. The most recent example is the Porter Ranch development, one of the largest developments in Los Angeles history. It will include 3,395 homes and 6 million square feet of commercial space. It is curious that Los Angeles would permit such a project if, indeed, the city felt its water supply was insufficient.

Page 6-21 details what the Draft EIR terms "a comprehensive water conservation program." However, as in earlier sections,

the DEIR fails to include any information as to monitoring, enforcement, or the effectiveness of current programs. Nor does the list of potential new programs contain any guidelines as to how success rates will be measured. Listing programs is not the same as thoroughly implementing them.

26 [ On page 6-25, we are surprised to read that the home water audit was discontinued "due to lack of interest". However, it has been reinstated during the current drought cycle. To what extent has it been reactivated? Will home and commercial water audits be conducted when the drought ends? In Santa Barbara, Ventura, and San Luis Obispo counties, audit programs have been highly successful. In some cases, audit programs have reduced a home's consumption by 50%.

27 [ Also on page 6-25, the Draft EIR ignores the most important reason for implementing an increasing block rate structure. Under DWP's current uniform block rate, the pricing structure can act as a disincentive to water conservation. Presently, when DWP customers conserve in large numbers, DWP raises water rates to cover fixed costs and to maintain a favorable bond rating. As a result, widespread savings by customers lead to increases in their water bills. An increasing block rate, already enacted by 35% of the agencies in MWD's service area, rewards conservation and penalizes waste. The Draft EIR is also inaccurate when it implies that the city of Tuscon, Arizona may end its increasing block structure (p.6-25).

Landscape Controls (p. 6-26): The Draft EIR is correct in stating that a comprehensive landscape ordinance would be "effective in reducing total water demand". By December, 1992, all cities and counties, including Los Angeles, will be required under AB 325 to enact water efficient landscape ordinances. Landscape controls are also included in the list of measurable BMPs, which then DWP will agree to enact under the BMP Memorandum of Understanding.

28 [ The Draft EIR is inaccurate in stating that the environmental effects of water conservation programs in Los Angeles would be negligible. There are direct benefits to Los Angeles: the Los Angeles Water Conservation Sewer Flow Ordinance of 1988 was originally designed to help ease the burden on the Hyperion Sewer Treatment Facility, then at full capacity, and to protect the Santa Monica Bay from further degradation.

29 [ Finally, the conclusion of the water conservation section incorrectly states that an expanded water conservation program is "unquantifiable". Given the BMP negotiation process now underway is designed to make reliable estimates for water conservation programs, given the measurable results of other municipalities' water conservation programs and given the failure of this document to objectively evaluate the City's efforts to implement,

enforce and monitor water conservation programs, this conclusion is insupportable and pre-mature.

#### Increased Use of Los Angeles River Groundwater Basin

The yield of the groundwater basin (p.6-27) will increase in the future if any of the programs mentioned are implemented including groundwater clean-up. An estimate of the increased yield, and its potential as a replacement source of water, should be included in the final EIR.

#### Increased Purchase of Water From the Metropolitan Water District

The table on Metropolitan Water District (MWD) purchases by LADWP (Table 6-3) should be updated through 1990.

In the discussion of other water supply programs, the EIR should mention the MWD seasonal storage program, which LADWP has relied upon, and which will help to stretch existing supplies.

We take issue with the statement that increased use of MWD water by LADWP would "aggravate" local water supplies and have adverse impacts on other southern California communities that depend on MWD. In actuality, reduced MWD supplies to other member agencies will lead to more efficient use of local (southern California) supplies because it will induce, for example, greater use of reclaimed water, and more efficient water use through conservation. By decreasing the use of imported water supply and increasing the use of local supplies a member agency will be less vulnerable to interruptions or reductions in the imported supply. MWD member agencies will eventually have greater reliability if they use local supplies more efficiently.

#### Water Reclamation

The section on reclamation in the Draft EIR (p.6-36 - 6-42) begins with regurgitating outdated information on the barriers to water reclamation. However, on page 6-38, the Draft EIR acknowledges that the City of Los Angeles has ambitious water reclamation goals which the City Council and the DWP Commission have embraced.

In the discussions of the costs of reclaimed water, the Draft EIR fails to take into account a number of factors which reduce these costs. For example, MWD already offers a \$154 credit for each acre-foot of water saved by approved projects. Reclamation projects are ideal for such credits. In addition, \$60 million is currently available to Los Angeles through AB 444 monies which, to date, Los Angeles has shown little willingness

to pursue.

33

Table 6-4 on page 6-40 paints a misleading picture of water reclamation potential in Los Angeles. Many more projects are not only possible but are being planned. The most promising is the West Basin Project, planned for 70,000 acre-feet per year with the potential to expand an additional 30,000 acre-feet per year. The Draft EIR does not specifically mention plans to use reclaimed water in new developments, either. Both the Porter Ranch development in the San Fernando Valley and the Playa Vista development in West Los Angeles will be required to install dual plumbing systems.

The Draft EIR does not even mention the potential for reclaimed water use for industrial purposes within wastewater treatment facilities themselves. In Los Angeles, both Hyperion and the Terminal Island sewer facilities could use reclaimed water.

The realistic potential for water reclamation has been greatly underestimated by the Draft EIR. According to the California State Water Resources Control Board (June 1990) report on water reclamation, the County Sanitation District of Los Angeles is the largest developer of reclaimed water use with eight plants and deliveries of 534,728 acre-feet total. This belies the Draft EIR's claim that the use of reclaimed water is more severely limited by the Los Angeles County Health Department than health departments in other parts of California. The Water Board report also finds that the City of Los Angeles does not even rank in the top twelve agencies using reclaimed water.

In contrast, the Irvine Ranch Water District, Orange County, and the San Diego Water Authority are aggressively pursuing reclamation projects. Irvine already has seven buildings under construction requiring dual plumbing.

The Long Beach water reclamation program has more than 20 waste reuse sites that receive 3 million gallons of reclaimed water per day, mostly for irrigation.

Orange County Water District's Water Factory 21 pumps highly treated, reclaimed wastewater underground for seawater intrusion barriers.

Monterey, CA has plans underway to reclaim 30 million gallons per day for irrigation of crops.

According to US Water News, dated May 1990, "With the recent completion of major distribution networks serving Long Beach, Cerritos, and Lakewood, the districts have in operation a vast reuse network serving over 66 million gallons per day of reclaimed water to over 140 sites throughout Los Angeles County."



The Draft EIR does not even list the reclamation projects which are in conceptual, planning, or operational stage within Los Angeles. A copy of such projects is listed in the City of Los Angeles Office of Reclamation newsletter, dated December 1990.

We incorporate by reference the Decennial Survey of the Los Angeles Department of Water and Power conducted by Richard Metzler and Associates in March, 1990, which concludes that the DWP is "overly conservative in evaluating the economic feasibility of reclamation projects and is not sufficiently aggressive in seeking new potential candidate projects" (p.264-265).

Finally, we dispute the Draft EIR's claim that water reclamation would have minimal effects of the Los Angeles environment. The consequences would be substantial and they would be beneficial. Santa Monica Bay, a rehabilitated Los Angeles River, and the Sepulveda Basin would all benefit. The Draft EIR has minimized the benefits of reclamation and has greatly exaggerated the barriers to reclamation.

#### Water Transfers

In this section (p.6-44), there should be a discussion of dry year options for water marketing.

#### Other Alternatives

An alternative not discussed is increasing the efficiency of Los Angeles Aqueduct operations. An example is to increase the capture of wet year runoff in order to reduce the spills on the Owens Valley floor and Owens Lake; these uncontrolled spills can cause a negative impact on the environment by promoting salt-crust formation. It is also our understanding that DWP is researching the potential use of wet year runoff for groundwater recharge in volcanic tableland areas and/or to increase the capacity of aqueduct reservoirs, thus ensuring greater dry year supplies.

#### COST BENEFIT ANALYSIS

We wonder why a cost-benefit analysis of the impacts to the Owens Valley from implementation of the project has not been undertaken. Such an analysis would need to take into account the alternative water sources available to the City as well as savings achieved by DWP through its illegal diversions from Mono Basin streams. DWP has benefitted not only from the water diverted, but also from the hydroelectric power generated as a result of these diversions. A cost-benefit analysis would also

need to consider the potentially adverse impacts of increased surface water diversions from the Mono Basin after 1970 on the middle and lower Owens River.

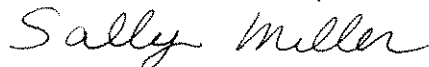
39 Absent full disclosure of pre-1970 conditions and the impacts of increased surface water diversions into the 2nd barrel of the aqueduct, absent complete discussion of alternative water supplies and their true cost to LA, absent a cost/benefit analysis --how can the public know if appropriate environmental standards have been set or whether an environmentally superior alternative has been adequately considered?

In closing, we hope that these comments will contribute in a constructive manner to the successful development of a water management program for the Owens Valley. Please contact us if we can offer further clarification of our comments or if there are any other issues you wish to discuss.

Sincerely,



Ilene Mandelbaum  
Associate Director



Sally Miller  
Eastern Sierra Representative

Enclosures:

- 1 - 10-25-89: MLC and Audubon on the Scope of The Mono Lake Basin Workplan
- 2 - 01/04/90: SWRCB's Notice of Preparation of EIR for Review of Mono Lake Basin Water Rights
- 3 - 03/15/90: MLC and Audubon's Comments on Notice of Preparation of EIR, sent to SWRCB
- 4 - 09/14/90: "Revised Work Plans for Preparation of EIR for Amendment of Appropriative Water Rights for Water Diversions in the Mono Lake Basin"
- 5 - 11/20/90: Memo to SWRCB from MLC: Comments on the Revised Work Plans for Mono Basin EIR
- 6 - 01/11/91: MLC's Comments on the Draft Urban Water Management Draft Plan for 1990
- 7 - 03/90: City of Los Angeles Board of Water and Power Commissioners "Decennial Survey of the DWP"

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- 7 - 03/90: City of Los Angeles Board of Water and Power Commissioners "Decennial Survey of the DWP"



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## RESPONSES TO COMMENTS

### LETTER C20

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#### RESPONSE C20-1

Please refer to response to master comment PD-3 for discussion of the relationship of the Mono Basin to the proposed project.

#### RESPONSE C20-2

Comment noted. Please refer to response to master comment PD-3 for discussion of the relationship of the Mono Basin to the proposed project.

#### RESPONSE C20-3

Please refer to responses to master comments EA-1 and MT-5 for a discussion of pre-project and cumulative impacts issues.

#### RESPONSE C20-4

Los Angeles obtains water from a number of sources, as described in Chapter 3 of the Draft EIR. Other sources of water such as tankering, desalination, and importation from distant sources would have considerable environmental impacts and economic costs associated with their development and implementation, as discussed in Chapter 6. Also, please refer to responses to master comments AL-1, AL-2 and AL-3.

#### RESPONSE C20-5

Please refer to response to master comment PD-3.

RESPONSE C20-6

Please refer to response to master comment PD-3.

RESPONSE C20-7

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

RESPONSE C20-8

Please refer to response to master comment PD-3.

RESPONSE C20-9

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 C20-10

Comment noted; please refer to responses to master comments PD-1, EA-1 and MT-5 for discussion of pre-project and cumulative impacts issues.

RESPONSE C20-11

Comment noted; please refer to responses to master comments EA-1 and VE-5 for a discussion of aerial photo interpretation; also see WL-5 regarding HEP.

RESPONSE C20-12

The page citations in this comment are unclear and unspecific. The Draft EIR contains numerous conclusions of significant impacts (see Chapter 10, Vegetation); also see responses to master comments WA-1, VE-2 and VE-3.

RESPONSE C20-13

The data availability related to stream bank erosion is extremely limited and subject to interpretation by experts. It is not sufficient to conclude that significant adverse effects have occurred. See response to comment A4-57.

RESPONSE C20-14

*Please refer to responses to master comments EA-1 and MT-7.*

RESPONSE C20-15

Comment noted; the quote from CEQA regarding cumulative impacts is normally interpreted to refer to a number of individual projects that, taken together, have a significant cumulative impact.

RESPONSE C20-16

*Please refer to response to master comment MT-6 and Appendix C-2 for additional information on the Lower Owens River Project.*

RESPONSE C20-17

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 C20-18

See response to comment C20-4. Alternative water supplies for Los Angeles are discussed adequately in Chapters 3 and 6 of the Draft EIR.

RESPONSE C20-19

Conservation efforts by Los Angeles are described in Chapters 3 and 6 of the Draft EIR; see also response to master comment AL-3 for an update on conservation efforts by Los Angeles.

RESPONSE C20-20

Comment noted. No further response is required.

RESPONSE C20-21

Comment noted. Please refer to response B12-5 in Letter B-12.

RESPONSE C20-22

Comment noted. No response required.

RESPONSE C20-23

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 C20-24

Comment noted. No further response is required.

RESPONSE C20-25

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

RESPONSE C20-26

Comment noted regarding reinstatement of home audits. Continuance of the home audit program beyond the current drought is unknown at this time.

RESPONSE C20-27

Comment noted. No further response is required.

RESPONSE C20-28

Comment noted. Page 6-27, paragraph 1, last sentence, insert after the word effects ". . . and there may be direct benefits to Los Angeles such as improved water quality in Santa Monica Bay due



to reduced flow at the Hyperion Sewer Treatment Facility; and there may be some modest energy savings as a result of the reductions in hot water use."

RESPONSE C20-29

Comment noted. Please see response B12-5 in Letter B-12.

RESPONSE C20-30

The Draft EIR accurately points out the limitations of expanded groundwater extraction in the Los Angeles River Groundwater Basin on pages 6-27 and 6-28 in Chapter 6. Estimates of increased yield, if any, are impossible to project at this time.

RESPONSE C20-31

Comment noted. No further response is required.

RESPONSE C20-32

Comment noted. No further response required.

RESPONSE C20-33

Please refer to response to master comment AL-2 regarding wastewater reclamation.

RESPONSE C20-34

Comment noted. No further response is required.

RESPONSE C20-35

Comment noted. Please refer to response to master comment AL-2.

RESPONSE C20-36

The meaning and intent of this comment is unclear. Water transfers are generally discussed in Chapter 6, Alternatives, pages 6-44 and 6-45.

RESPONSE C20-37

The increased efficiency of aqueduct operations is a continuing effort by LADWP. The range of alternatives contained in the Draft EIR are considered to be most representative of alternative actions available to LADWP.

RESPONSE C20-38

Cost-benefit analyses are not typically performed under CEQA.

RESPONSE C20-39

This comment summarizes issues addressed previously in this letter.

**Letter C21**

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**Audubon Society, Eastern Sierra Chapter**



LETTER C-21

RECEIVED

JAN 28 1991

EIP ASSOCIATES  
SAN FRANCISCO, CA.

January 22, 1991

Eastern Sierra Audubon Society  
P.O. Box 624  
Bishop, CA 93515

Mr. John Davis  
EIP Associates  
150 Spear Street, Suite 1500  
San Francisco CA 94105

Re: Draft Environmental Impact Report - WATER FROM THE OWENS  
VALLEY TO SUPPLY THE SECOND LOS ANGELES AQUEDUCT

Dear Mr. Davis;

After reviewing the Draft Environmental Impact Report, the  
Eastern Sierra Audubon Society has the following comments:

I. ECONOMIC DEVELOPMENT - AGREEMENT

The Draft EIR states 101 acres adjacent to or within  
the Owens Valley towns are to be released through sale to  
add to the available land for development to help the local  
economies (Page 14-24). None of the land released should  
decrease the valley's wetland or meadows (wet or dry) in any  
way.

The specific identified needs that the City of Los  
Angeles is willing to release additional lands for should be  
identified.

II. PRE-PROJECT DESCRIPTION

The Draft EIR lacks a clear pre-project description,  
particularly for vegetation and wildlife. As a result it is  
impossible to understand the true nature and extent of the  
impacts resulting from the proposed project. This, in turn,  
makes evaluation of mitigation meaningless. Without a clear  
pre-project description, a detailed discussion of impacts,  
and an impartial evaluation of proposed and existing  
mitigation measures, the DEIR fails to meet CEQA  
requirements for public disclosure.

Further, Inyo County must use the information  
contained in the DEIR in deciding whether to enter into a  
long-term agreement with Los Angeles, based on the  
information in the DEIR. Without an adequate pre-project

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description and detailed analysis of impacts and mitigation, the county cannot make an informed decision.

### III. DESCRIPTION OF IMPACTS

A. The quantitative and qualitative effects on wildlife from the loss of springs, seeps, areas receiving agricultural tailwater, and marshlands on wildlife are not clearly portrayed in the DEIR. These areas provided important habitat for many wildlife species. The superficial assessment given to these impacts currently leads to the unconvincing conclusion that the effects to wildlife were not significant. Better supporting information should be provided.

B. Impacts to aquatic vegetation are not discussed in the DEIR. In fact, aquatic vegetation is not even mentioned in either the long-term agreement or the DEIR. The Agreement's management scheme should include aquatic vegetation and the DEIR should describe the effects of the proposed project on this vegetation.

### IV. EVALUATION OF MITIGATION

A. The DEIR should elucidate the direct benefits to Inyo's wildlife and native plant species of the proposed and extant mitigation projects. It is impossible to determine whether the impacts identified as significant have been or will be reduced to less than significant without a detailed analysis of the benefits of mitigation measures.

B. Fish hatcheries do not mitigate for impacts at Fish Springs and Blackrock Springs. These hatcheries were already functioning when the impacts to these areas occurred; in fact the impacts were due in part to supplying water to the hatcheries. Furthermore, the fish grown in the hatcheries (the purported mitigation) are planted partly in Inyo county and partly outside Inyo County, while the impacts are localized.

More appropriate mitigation for the loss of Fish and Blackrock Springs would include establishing habitats similar to the springs and wetlands that originally existed there. The Water flowing through the Fish Hatcheries should be used to supply these reestablished wetlands before entering the aqueduct.

Finally, impacts due to the pumping of water for the fish hatcheries could be reduced by recycling more of the hatchery process water.

C. Many of the environmental and mitigation projects are supplied with water for only part of the year, and are dry for the remainder of the year; during dry years the water supply may be reduced or eliminated. The DEIR should discuss how this inconsistent water supply effects wildlife and vegetation and wetland ecology in general.

The DEIR should list which projects will receive permanent water supplies and which will be watered only intermittently.

The inconsistent nature of the management of existing mitigation measures is apparently due to the fact that all water supplied to these projects is either directly supplied by or replaced by pumped ground water. This ground water supply is pumped in addition to ground water exported to Los Angeles or used within the valley for non-mitigation purposes.

We may assume that when ground water must be conserved to protect vegetation in the well fields, the supplies to mitigation measures are the first to be reduced. If Los Angeles and Inyo County commit to mitigating an impact, a firm supply of water should be committed to keep the project viable. If that means Los Angeles exports less ground water or surface water from the valley, so be it.

#### V. MITIGATION SUGGESTIONS:

A. The proposed two acre mitigation project at Hines Spring is inadequate considering the extent of the lost marsh and riparian area. More appropriate would be twenty to thirty acres.

B. A permanent supply of water for the Owens River Delta should be guaranteed in the DEIR.

C. The area locally known as the "Keeler Artesians" should be adopted as a mitigation project. The well there supplies a vast pond and mud flat habitat, but may be sealed due to the proximity of an abandoned heap containing fluoride, thus threatening the seasonal home of thousands of ducks and shorebirds. If adopted as a mitigation project, LADWP and Inyo County could coordinate with the Dept. of

12 Fish and Game and the Lahonton Water District to move either the toxic heap or the well, to assure a water supply to this important migratory bird habitat.

13 D. Some of the wetland mitigation projects should be closed to hunting and grazing as permanent scientific preserves.

#### VI. GRAZING MANAGEMENT

Significant over grazing is now occurring on DWP lands. Resource damage is excessive. Grazing management should be part of the overall plan because abuse from poor grazing policies has just as serious an impact on vegetation as ground water pumping. Grazing on DWP land in the Owens Valley should be submitted to a CEQA review with full public participation. The DEIR must analyze the cumulative impacts of livestock grazing vis-a-vis expanded pumping and reductions in surface irrigation.

14 The grazing management program offered must be more fully described and made available for public review to avoid future significant cumulative impacts and effects. Any future changes to that program should also be subject to public review. There should be some method provided to assure that the policies are being implemented and that vegetation is not lost due to over grazing.

#### VII. ROTATIONAL PUMPING

The DEIR states (page 16-14) that the purpose of the proposed new wells is to "increase LADWP's operational flexibility and to facilitate rotational pumping." The DEIR should explain what is meant by "operational flexibility," describe how and why LADWP proposes to practice "rotational pumping," and enumerate the environmental benefits of these practices to the Owens Valley.

New well locations were selected so that construction would have a "minimal effect on the surface vegetation and the environment." The more important consideration of the effects of the operation of the new wells is not mentioned as part of the selection process. What criteria did LADWP use in selecting the new well sites?

The DEIR should describe the monitoring plan proposed for each new well to ensure the new wells will be operated in conformance with the goals of the Agreement.



#### VIII. EFFECTS OF BIG PINE AND LAWS SPREADING AREAS

The DEIR should describe the projected increase in recharge capacity resulting from expansion of the Big Pine and Laws spreading areas and should discuss the planned use of and projected recharge from these facilities. How will existing practices change as a result of the added recharge capacity? Will less water flow to the Owens River or other areas of the valley in wet years? What effect will the additional recharge have on ground water pumping in the affected area? What effect on aqueduct export?

On January 15, 1991, dust from the Big Pine spreading area was blowing over Highway 395, substantially reducing visibility over the stretch of the highway running parallel to the spreading area. The DEIR states that air quality "could be adversely affected" during construction of the additional facility; however, no significant impact is expected to result from operation. Expansion of the Big Pine facility will increase the spreading area by the 15 acres. The DEIR should explain whether this will further increase the amount of dust that could blow over the adjacent highway.

#### IX. FLUCTUATIONS IN RESERVOIR LEVELS

Pages 7-8 and 9 of the DEIR state: "Reservoir levels varied slightly due to operation of the second aqueduct, with no significant impact on water resources. The changes and fluctuations in storage volumes have had no significant impact on vegetation."

In reality fluctuations in the water level at Tinemaha Reservoir have had the following impacts:

A. Vegetation - high water levels drown native vegetation in a band surrounding the reservoir; fluctuating water levels encourage spreading of Tamarisk.

B. Air Quality - low water levels result in blowing dust from the lake margins.

C. Wildlife - fluctuating water levels during the spring inundate nesting areas, or leave unprotected nesting areas that require water for protection.

These impacts should be considered in the DEIR and, if found significant, should be mitigated.

21 X. AGREEMENT CONSIDERATIONS

A. Agreement, Page B-50. Preservation of wetlands is a national priority for the Audubon Society. Especially in an area such as the Owens Valley, where wetlands are scarce, it is necessary that no wetlands or meadows be included in the acreage divested under the Agreement.

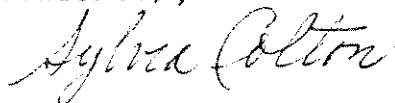
22 B. Agreement, Page B-41. The flood plains of Ash and Cottonwood Creeks, south of Lone Pine, are valuable wildlife habitat areas east of the aqueduct, which would greatly benefit by Tamarisk removal. Accordingly, these areas should be included as high priorities in the Tamarisk eradication program.

XI. DROUGHT RECOVERY POLICY

We support the concept of the drought recovery policy adopted by Los Angeles and Inyo County. Given the experimental nature of the management proposed in the Agreement and the extended drought, it is of the utmost importance that ground water pumping be managed in an "environmentally conservative manner."

We recommend, however, that the policy explicitly describe the management objectives and methods included in the above quoted concept. The policy should have as its goal the recovery of the valley's vegetation to 1984-87 conditions, or the "base line" condition. The term of the policy should be the length of time required for the vegetation to recover and for the effectiveness of the management techniques to be evaluated.

Sincerely,



Sylvia Colton, President  
Eastern Sierra Audubon Society

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## **RESPONSES TO COMMENTS LETTER C21**

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### **RESPONSE C21-1**

Please see response to master comment PD-15 regarding this issue.

### **RESPONSE C21-2**

Please refer to responses to master comments EA-1, for discussion of pre-project issues, and MT-7 and MT-8 regarding mitigation measures.

### **RESPONSE C21-3**

Please refer to responses to master comments WL-1 through WL-4; also refer to Appendices A-1 and C-4.

### **RESPONSE C21-4**

Please see response A4-17 in Letter A-4.

### **RESPONSE C21-5**

Comment noted. For a more detailed discussion of the mitigation of significant effects, please refer to responses to master comments WL-6, MT-1, MT-2, MT-3, MT-5 and MT-7.

RESPONSE C21-6

For a discussion of mitigation projects implemented between 1970 and 1990, and generally available under CEQA, please refer to responses to master comments MT-1 and MT-3. Also see responses to comments A4-76 and C11-34 regarding the Fish Springs and Blackrock Hatcheries.

RESPONSE C21-7

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 continuation of mitigation projects.

RESPONSE C21-8

Please refer to responses to master comments PD-4, PD-17 and MT-4.

RESPONSE C21-9

Comment noted. No further response is required.

RESPONSE C21-10

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

RESPONSE C21-11

The suggestion in this comment is noted and may be considered by the Technical Group.

RESPONSE C21-12

This suggestion is noted and may be considered by the Technical Group.

RESPONSE C21-13

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 C21-14

Please refer to response to master comment PD-4 for an explanation of rotational pumping.

RESPONSE C21-15

Because of the annual variability of runoff, the potential increase in recharge capacity from new and enlarged facilities cannot be estimated at this time. New and enlarged facilities will improve efficiency of recharge but may or may not affect in-valley uses or export, depending on runoff. Actual capacities of the planned facilities in Laws and Big Pine have not yet been established.

RESPONSE C21-16

Expansion of the Big Pine spreading area will not result in increased blowing dust, compared to existing conditions.

RESPONSES C21-17 THROUGH C21-20

There have been no changes in operations at Tinemaha Reservoir due to the project which could result in significant vegetation impacts. Please refer to response to master comment VE-7 for a discussion of saltcedar control. Also please refer to response to comment A4-64.

RESPONSE C21-21

Please refer to response to master comment PD-15 regarding the release of Los Angeles-owned lands. The flood plains of Ash and Cottonwood Creeks, south of Lone Pine, will be considered by the Technical Group for inclusion in the saltcedar control program under the Agreement.

RESPONSE C21-22

For more information on the drought recovery policy, please refer to response to master comment PD-17.





