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SUPERIOR COURT OF CALIFORNIA

COUNTY OF INYO

* * * *

CITY OF LOS ANGELES; DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES,

Plaintiffs,

vs.

BOARD OF SUPERVISORS OF THE COUNTY OF INYO; THE COUNTY OF INYO; JOHN K. SMITH, COUNTY ADMINISTRATIVE OFFICER; INYO COUNTY WATER COMMISSION; AND DOES 1 THROUGH 50,

Defendants.

CASE NO. 12908

STIPULATION AND ORDER FOR JUDGMENT

It is hereby ordered by this Court, and stipulated by and between Plaintiff, CITY OF LOS ANGELES (Los Angeles) and DEPARTMENT OF WATER AND POWER OF THE CITY OF LOS ANGELES (Department) by and through JAMES K. HAHN, City Attorney; EDWARD C. FARRELL, Chief Assistant City Attorney for Water and Power; by EDWARD A. SCHLOTMAN, Assistant City Attorney; and defendants COUNTY OF INYO (County) by and through PAUL N. BRUCE, County Counsel; GREGORY L. JAMES, Special Counsel; and ANTONIO ROSSMANN, Special Counsel; as follows:

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Angeles.

History and Preliminary Statement

In 1913, the City of Los Angeles completed an aqueduct from Owens Valley to the City. The aqueduct had a capacity of 480 cubic feet per second (cfs). In 1970, a second aqueduct with a capacity of 300 cfs was completed and began operating, bringing the total capacity of the aqueduct system to about 780 cfs. Los Angeles' operations to supply the second aqueduct, including the pumping of groundwater in Owens Valley led to litigation by Inyo County against Los

SECTION I

In a suit filed in 1972, Inyo County claimed that increased groundwater pumping was harming the environment of Owens Valley and 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 Court of Appeal for the Third Appellate District ruled that Los Angeles must prepare an EIR (32 Cal. App. 3d 795). Since 1973, Los Angeles has prepared two EIR's, one in 1976 and another in 1979, but the Appellate Court found both to be legally inadequate.

In 1980, the Inyo County Board of Supervisors drafted, and the Inyo County voters passed, a groundwater ordinance to regulate groundwater pumping in the Valley through a groundwater management plan. The plan was to be implemented by a groundwater pumping permit procedure. The ordinance created a County Water Department and a County Water Commission.

As a result of litigation commenced against the County by the City of Los Angeles and its Department, the

County was directed in May 1981, by order of this Court in case number 12883, not to implement the Ordinance until a legally sufficient environmental impact report had been prepared and adopted by the County. A Final EIR was prepared, but the Final EIR was not adopted by the County.

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Id

In July 1983, as a result of litigation commenced by the City of Los Angeles and the Department, this Court in case number 12908 ruled said Ordinance unconstitutional, invalid, and preempted by law, and that the implementation of the Ordinance should be enjoined. Pursuant to stipulation of the parties, entry of an injunction and final judgment have not been entered by this Court.

In 1983, following the Superior Court's decision invalidating Inyo County's groundwater ordinance, Inyo County and Los Angeles began an attempt to develop a groundwater management plan that would settle the litigation between the parties. In April 1984, the governing bodies of Inyo County and Los Angeles approved a five (5) year interim agreement. In this interim agreement, the two parties agreed to:

- o settle then existing property tax litigation between Inyo County and Los Angeles;
- o temporarily suspend Inyo County's appeal of the Court's decision invalidating its groundwater ordinance;
- o temporarily suspend litigation on Inyo County's environmental suit and Court-imposed pumping restrictions by substituting jointly developed annual pumping programs;
- o lease Owens Valley town water systems to Inyo County, which would result in a reduction in water

rates;

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- o conduct cooperative studies, together with impartial third parties, including the United States Geological Survey (USGS);
- o implement certain enhancement/mitigation projects;
- o provide financial assistance to Inyo County from Los
 Angeles to cover costs of various studies and the
 County's water-related activities;
- o negotiate a long term groundwater management plan;
- o resume the CEQA litigation and litigation over the groundwater ordinance's validity if the parties did not develop and adopt a long term joint groundwater management plan for Owens Valley.

December 1984, the Court of Appeal modified Mandate that it had originally issued in 1973, to approve the five-year agreement of the parties. The Court specifically explained that the modification did that a joint long term groundwater management plan would be a The project would remain as it was -- a program new project. increasing the average rate of groundwater pumping and use (both for export and in-valley use), above a baseline rate reasonably representing the average of groundwater pumping and use (both for export and in-valley use) preceding the operation of the second aqueduct. However, the Court did allow that the command of its Writ to prepare an EIR could be met if the were to be presented in conjunction with a joint long term In January 1985, management plan. this approved the interim agreement.

In May 1988, as a result of a joint application by Inyo County and the Department, a sixteen (16) month exten-

sion by the Court (from February 1989 to June 30, 1990) was granted to the Department for the purpose of completing studies necessary for development of a joint long term groundwater management plan and EIR. In June 1990, Los Angeles and Inyo County requested a further twelve (12) month extension to September 30, 1991. In July 1990, the Court also granted this extension. In August 1991, the Court granted a further extension to October 21, 1991.

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Since 1984, certain studies budgeted at approxifive million dollars (\$5,000,000.00) have been under-Inyo County, Los Angeles, and USGS to learn taken by the relationship between groundwater pumping its about impact on native vegetation. As part of these studies, Inyo County and the Department developed extensive information on the geohydrology, water budget, soils, and vegetation of Owens Valley. USGS compiled and analyzed the information and summarized its independent findings in a series of technical re-These USGS reports, together with other cooperative ports. study materials, became the technical foundation for the joint long term groundwater management plan that has been developed by the parties.

Under the joint five-year interim agreement, the two parties cooperatively developed and implemented numerous projects. These enhancement/mitigation projects range in scope from the revegetation and irrigation of certain areas to enhancement of wildlife habitats and recreation areas.

After two years of negotiations, Inyo County and Los Angeles reached a preliminary agreement on a joint long term groundwater management plan on August 1, 1989. The joint long term management plan is set forth in this Stipulation and

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Order. An EIR, as required of Los Angeles by the Court of Appeal's Writ was presented to that Court in conjunction with the joint long term groundwater management plan. The EIR has been approved by that Court and its Writ of Mandate has been discharged.

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

GOALS AND PRINCIPLES FOR GROUNDWATER MANAGEMENT

The goals and principles of this Stipulation and Order shall apply primarily within Owens Valley, but shall be applied as appropriate to activities of the Department within Inyo County.

The Inyo County/Los Angeles Standing Committee and the Inyo/Los Angeles Technical Group formed pursuant to a Memorandum of Understanding between the parties, dated September 2, 1982, will continue in existence to represent the parties in implementing these goals and principles.

As agreed by the parties, the Department representatives on the Standing Committee shall include at least one (1) the Los Angeles City Council, the Administrative of the City of Los Angeles, two (2) members of Board of Water and Power Commissioners, and three (3) The County representatives on the Standing Committee shall be at least one (1) member of the Inyo County Board (2) Inyo County Water Commissioners, Supervisors, two and The Technical Group shall be (3) staff members. prised of not more than five (5) representatives selected by the County and five (5) by the Department.

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Neither the Technical Group nor the Standing Committee shall make any determination or recommendation as called for in this Stipulation and Order, the Green Book, or the EIR without first obtaining agreement among the Department's representatives and the County's representatives. Regardless of the number of representatives from either party in attendance at a Standing Committee or Technical Group meeting, Inyo County shall have only one (1) vote, and Los Angeles shall have only one (1) vote.

I. MANAGEMENT AREAS

- Each well field area has been included in a designated **A** . The boundaries of each management management area. been established so as to contain all vegetation have that could be impacted as a result of groundwater pumping from the well field area during "worst case" conditions years along with heavy pumping). Each (multiple dry management area contains several monitoring sites. Each Department well in a management area is linked to monitoring site for management purposes.
- B. The vegetation and groundwater conditions within the management areas will be carefully monitored by the Technical Group to assure that the goals and principles of this groundwater management plan are met.
- C. If a new well is constructed outside of a designated management area, or if, outside of a designated management area, groundwater pumping is found through monitoring or other means, to cause or to have the potential to cause a significant decrease or change in vegetation or a significant effect on the environment, or if the Department commences water gathering activities outside of the

Owens Valley, the Technical Group shall expand the management area as necessary, or shall designate a new along with appropriate monitoring management area re-The appropriate vegetation classifications quirements. management shall be established by the Technical within the new area and each new management be managed in accordance with these goals and principles. It is recognized that vegetation composition and density

D. It is recognized that vegetation composition and density varies for reasons other than groundwater pumping, from period to period, depending upon weather, precipitation, surface water spreading, and other factors.

II. MANAGEMENT MAPS

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Color coded management maps have been prepared (reduced copies attached as Exhibit A) which show Owens Valley vegetation classified by management type, management areas, monitoring sites, and wells. The Department's vegetation inventories that were conducted between 1984 and 1987, were used in compiling these maps. Approximately 227,000 acres of vegetation on the valley floor have been classified as follows:

- A. Type A Classification. This classification is comprised of vegetation communities with evapotranspiration approximately equal to average annual precipitation. This classification is shown as white on the management maps and includes approximately 150,347 acres.
- B. Type B Classification. This classification is comprised of scrub dominated communities, including rabbitbrush and Nevada saltbush communities with evapotranspiration greater than precipitation. This classification is shown

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- This classification is Type C Classification. grasslands/meadow vegetation communities with transpiration greater than precipitation. The ties comprising this classification exist because of high groundwater conditions, natural surface water drainage, surface water management practices in the and/or conveyance facilities, wet year water spreading, This classification is shown as green etc. management maps and includes approximately 42,013 acres.
- D. Type D Classification. This classification is comprised of riparian/marshland vegetation communities with evapotranspiration greater than precipitation. The communities comprising this classification exist because of high groundwater conditions, natural surface water drainage, and/or surface water management practices in the area, i.e., conveyance facilities, wet year spreading, etc. This classification is shown as red on the management maps and includes approximately 5,580 acres.
- of areas where water is provided to City-owned lands for alfalfa production, pasture, recreation uses, wildlife habitats, livestock, and enhancement/mitigation projects. This classification is shown as blue on the management maps and includes approximately 18,830 acres.

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III. MANAGEMENT STRATEGY

A. OVERALL GOAL

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overall goal of managing the water sources within Inyo County is to avoid certain described changes in vegetation and to cause and 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.

B. GROUNDWATER MINING

The goal is to avoid long term groundwater mining from aquifers of Inyo County. This goal will met by managing annual groundwater pumping so that the total pumping from any well field area over a 20 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. The Technical Group increase the annual pumping from a well above this amount if a recharge program for that area implemented or for other relevant reasons that are sistent with these goals and principles. annual recharge to each well field area over the 20 shall be determined by the Technical Group information developed by the United States Geological Survey (USGS) and other relevant information, including an analysis of water levels in each well field area.

C. DEFINITIONS

Unless otherwise specifically defined in these goals and principles, the terms "mitigation" and "feasible" are to be defined as under the California Environ-

mental Quality Act ("CEQA") as of July 1, 1989. The definition of these terms as set forth in CEQA and the Guidelines for Implementation of CEQA on July 1, 1989 are:

Mitigation:

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

(<u>Guidelines for Implementation of the California Environ-mental Quality Act - Section 15370</u>)

Feasible:

1. "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

(<u>California Environmental Quality Act - California Public</u>
Resource Code - <u>Section 21061.1</u>)

D. MONITORING

Vegetation monitoring sites and water table monitoring wells have been and shall be established inside and outside each management area and Owens Valley town as determined feasible and necessary by the Techni-

The type of monitoring that will be conducted cal Group. each site and at each monitoring well will determined necessary by the Technical Group. Monitoring include, but is not limited to, measurement retained soil water, water levels in deep wells, analysis of vegetation, and the use of photograph-All monitoring, analysis and interpretaic monitoring. tion of results shall be done by the Technical Group. The Department shall fund the installation of the necessary monitoring sites and monitoring wells. The Department shall perform such maintenance on the monitoring wells as is necessary. The Department and the County shall jointly maintain the vegetation monitoring sites.

E. GREEN BOOK

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location of each management area, vegetation monitoring site, and each monitoring well, the wells linked to each vegetation monitoring site, the method for locating additional monitoring sites and monitoring the type of monitoring to be conducted at site, the standardized procedures for analysis and interpretation of monitoring results, including the determination of available soil water and the amount soil water required by vegetation, are set forth technical document called a "Green Book." The "Green is attached as a technical appendix this Book" Stipulation and Order and to the EIR.

F. MITIGATION

In addition to the mitigation measures described below, any significant effect on the environment of Inyo County attributable to groundwater pumping or to

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Department surface water management practices, shall be mitigated as soon as a reasonable and feasible mitigation plan is developed. Implementation of this plan shall be commenced within twelve (12) months of a determination by the Technical Group or by dispute resolution that a significant effect on the environment has occurred.

PRIVATE WELLS

New wells will be sited and groundwater pumping shall be managed to avoid causing significant adverse effects on water quality or water levels in non-Department-owned wells in the Owens Valley that are attributable to groundwater pumping by the Department. significant adverse effects shall be promptly mitigated Department. The determination of significant by the adverse effects shall be made by the Technical Group as provided in section IV.B below. Although this intended to protect owners of wells who are not parties this Stipulation and Order from impacts tributable to groundwater pumping by the Department, this provision is not a limitation of the legal rights of such non-parties or the parties, nor does it create a binding administrative remedy that must be pursued and prior to the exercise of any legal right by such a party.

H. INDIAN LANDS

These goals and principles and the other provisions of this Stipulation and Order will not alter in any way the Department's existing commitments to supply water to Indian lands in the Owens Valley, or cause a significant adverse effect on such lands.

I. RARE AND ENDANGERED SPECIES

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Groundwater pumping and surface water management practices will be managed in a manner that is consistent with state and federal laws pertaining to rare and endangered species.

J. BISHOP CREEK WATER ASSOCIATION

These goals and principles and the other provisions of this Stipulation and Order shall not alter in any way the powers and duties of the Bishop Creek Water Association.

IV. VEGETATION MANAGEMENT GOALS AND PRINCIPLES

The management goals and principles for each vegetation management type are described below.

A. VEGETATION MANAGEMENT

Type A Vegetation Classification

This zone, composed of vegetation with a calculated evapotranspiration rate approximately equal to precipitation, is not affected by groundwater pumping or by changes in surface water management practices since such vegetation survives on available precipitation.

Type B, C, and D Vegetation Classifications

The goal is to manage groundwater pumping and surface water management practices so as to avoid causing significant decreases in live vegetation cover, and to avoid causing a significant amount of vegetation comprising either the Type B, C, or D classification to change to vegetation in a classification type which precedes it alphabetically (for example, Type D changing to either Type C, B, or A vegetation).

Methods that will be used to achieve this goal include an extensive monitoring program, discretion vested in the Technical Group and/or Standing Committee to take appropriate action, provisions for automatic turning off of wells (see section V), provisions for determining whether significant decreases or changes in vegetation have occurred (see section IV.B), provisions for mitigation, and provisions for dispute resolution.

Type B, C, and D classifications are each comprised of several vegetation communities defined in the "Land Classification and Natural Community Descriptions for the Owens Valley" (1987). It is recognized that a change in vegetation from one of these communities to another, as long as the change is not to a community that would fall outside the same classification will not be considered significant. A decrease in live salt cedar cover in the Type D classification generally will not be considered significant.

Notwithstanding the fact that wells may have been turned off due to insufficient soil moisture, any decreases or changes in vegetation that are determined to be significant by the Technical Group shall be mitigated as soon as a reasonable and feasible mitigation plan is developed by the Technical Group and implemented by the Department. In developing this mitigation plan, the Technical Group shall consider the potential environmental and water supply effects of any proposed plan.

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Implementation of this plan shall be commenced by the Department within twelve (12) months of a determination by the Technical Group or by dispute resolution that a significant decrease or change has occurred.

A mitigation plan developed by the Technical Group could include restoring perennial vegetation cover in an area where there has been a significant decrease in live perennial vegetation cover, and/or restoring vegetation in an affected area to a vegetation community that falls within the classification shown on the relevant vegetation management map as soon as it can be reasonably restored. Mitigation activities could include, but are not limited to, surface water application or reduction in groundwater pumping (if groundwater pumping has not already been terminated in the affected area in accordance with the provisions of section V).

The Department shall continue to operate canals accordance with its practices from 1970 (past pracincluded taking canals out of service maintenance and for operational purposes). However, any permanent change in canal operations, compared to past practices, shall be subject to prior Standing Committee The Department will continue to determine approval. implement maintenance activities to control aquatic weeds and ditch bank vegetation in order to maintain canals a clean and efficient manner.

Type E Vegetation Classification

(Lands supplied with water.) These lands will be supplied with water and will be managed to avoid causing significant decreases and changes in vegetation

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from vegetation conditions which existed on such during the 1981-82 runoff year. lands Significant and changes in vegetation will be determined forth in the management goals for Type B, C, vegetation; however, conversion of cultivated land by the Department or its lessee to other irrigated uses considered a significant decrease orAnother primary goal is to avoid significant decreases in recreational uses and wildlife habitats that in the past have been dependent on water supplied by the Department.

The Department shall continue to provide water for Los Angeles-owned lands in Inyo County in an so that the water related uses of such sufficient lands made during the 1981-82 runoff can continue to be made. The Department shall continue provide water to Los Angeles-owned lands in the Olancha/Cartago area such that the lands that ceived water in the past will continue to receive water. Additionally, the Department shall provide water to any enhancement/mitigation projects added since 1981-1982, unless the Inyo County Board of Supervisors and the Department agree to reduce or eliminate such water supply.

It is recognized that successive dry years could result in insufficient water to meet all needs. During periods of dry year water shortages, the Technical Group will evaluate existing conditions. A program providing for reasonable reductions in irrigation water supply for Los Angeles-owned lands in the Owens Valley and for enhancement/mitigation projects may be implement-

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ed if such a program is approved by the Inyo County Board of Supervisors and the Department, acting through the Standing Committee.

DETERMINATION OF "SIGNIFICANT" AND "SIGNIFICANT EFFECT ON THE ENVIRONMENT"

In determining (1) whether a decrease in live vegetation cover is "significant," or (2) whether a change in vegetation from one vegetation classification to another is "significant," or (3) whether a "significant effect on the environment" has occurred, it is recognized that it is infeasible to develop definitions of these terms for use in all areas and under all conditions. Therefore, a determination of what is a significant decrease or change in vegetation and of what is a significant effect on the environment will be made by a case by case analysis.

The first step in this case by case analysis is to determine whether the decrease or change can be measurably demonstrated. If so, it must then be determined by the Technical Group if the decrease or change, or if a potential significant effect on the environment, is or is not attributable to groundwater pumping and/or to surface water management practices.

Decreases and changes in vegetation and other environmental effects shall be considered "attributable to groundwater pumping, or to a change in surface water management practices," if the decrease, change, or effect would not have occurred but for groundwater pumping and/or a change in past surface water management practices. This shall be determined by an analysis of all

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relevant factors, including a comparison of the affected area with an area of similar vegetation, soils, rainfall, and other relevant conditions where such a decrease, change, or effect has not occurred, or has not occurred to the same degree.

If the decrease, change, or effect is determined to be attributable to groundwater pumping or to changes in past surface water management practices, the Technical Group then shall determine whether the decrease, change, or effect is significant. In making this determination, the factors to be considered by the Technical Group shall include, but are not limited to:

- The size, location, and use of the affected area;
- The degree of the decrease, change or effect within the affected area;
- The permanency of the decrease, change, or effect;
- Whether the decrease, change, or effect causes a violation of air quality standards;
- Whether the decrease, change, or effect affects human health;
- Available factual and scientific data;
- Whether effects of the decrease, change, or effect are limited, but the incremental effects are substantial when viewed in connection with decreases or changes in other areas that are attributable to groundwater pumping or to changes in surface water management practices by the Department;
- Enhancement and mitigation projects that have been implemented by the Department.

V. GROUNDWATER PUMPING PROGRAM

A. WATER BALANCE PROJECTIONS

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By the first of each month the Technical Group shall project the "water balance" for each monitoring These monthly projections will be made unless the site. Technical Group determines that monthly projections unnecessary because of high soil water conditions. making these water balance projections, the Technical shall compare the estimated amount of soil moisture available to vegetation with the estimated required water needs of the vegetation for the growing season appropriate portion thereof) at each monitoring site. in accordance with These projections shall be made procedures contained in the Green Book.

The growing season used when water balance projections are made between January 1st and September 1st, shall be the growing season (or appropriate portion thereof) during that calendar year, and no precipitation shall be included in such water balance projections. season used when water balance projections made between September 1st through December 31st be the growing season during the following calendar year. the average annual precipitation the monitoring site between October 1st and September 30th shall be included in the October 1st water balance This will be reduced to 40 percent of jection. annual average precipitation if the average of the actual runoff for the previous runoff year and the forecasted for the then current runoff year is less than runoff average, and to 30 percent of the

annual precipitation if the average of the actual runoff for the two previous runoff years and the forecasted runoff for the then current runoff year is less than 75 percent of average. No precipitation shall be included in the November 1st and December 1st water balance projections.

B. WELL TURN OFF PROVISIONS

If as of July 1st or October 1st, the projected amount of available soil water at a monitoring site is less than the estimated water needs of the vegetation for the growing season (or appropriate portion thereof), the Department's wells linked to that monitoring site shall be immediately turned off. In addition to this provision requiring the automatic turn off of wells, the Technical Group and/or the Standing Committee may at any time turn off such wells as deemed necessary, or take such other action as appropriate, to achieve the goals of this Stipulation and Order.

C. WELL TURN ON PROVISIONS

In the event that wells are turned off in any area as a result of the provisions of paragraph B, the Technical Group shall periodically evaluate existing vegetation conditions in that area and determine whether any wells could be turned on. Only those wells whose operation will not contribute to the causation of a significant decrease or change in vegetation could be turned on. Wells that have been turned off could also be turned on if the Technical Group determines that the implementation of mitigation warrants such action.

If the Technical Group does not agree to turn

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wells in an area, the Department shall leave such off until the soil water in the area of the toring site has recovered to the estimated water needs of the vegetation as of the time the wells were turned the soil water in the area of the monitoring site has recovered to the level where the amount available vegetation is equal to the estimated water needs of vegetation as of the time that the wells were turned (as determined by the monthly water balance projections), the Department may turn on the wells that are linked to that monitoring site. The Technical Group, based upon an the existing vegetation conditions evaluation of other relevant factors, may revise the required level water recovery in a monitoring site area if such a revision is consistent with these goals and principles.

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. Certain town supply wells, irrigation supply wells, fish hatchery supply wells, enhancement/mitigation project

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supply wells, and other wells not affecting areas with groundwater dependent vegetation may be designated by the Technical Group as exempt from automatic turn-off.

ANNUAL OPERATIONS PLAN

By April 20th of each year, the Department shall prepare and submit to the Inyo County Technical Group a proposed operations plan and pumping program the twelve (12) month period beginning on April 1st. (In the event of two consecutive dry years when actual and forecasted Owens Valley runoff for the April to September period is below normal and averages less than 75 percent of normal, the Department shall prepare a proposed plan for the six (6) month period beginning on April 1st and October 1st, and submit such plans by April 20th and October 20th.) The proposed plan and pumping program and subsequent modifications to it shall be consistent with these goals and principles.

- A proposed plan shall include, but is not limited to, the following:
 - Owens Valley Runoff estimate (annual)
 - Projected groundwater production by well field (monthly)
 - Projected total aqueduct reservoir storage levels (monthly)
 - Projected aqueduct deliveries to Los Angeles (monthly)
 - Projected water uses in the Owens Valley (monthly)
 - Water balance projections at each monitoring site

- 2. The County through its Technical Group representatives shall review the Department's proposed plan of operations and provide comments to the Department within ten (10) days of receipt of the plan.
- The Department shall meet with County's the 3. representatives within Technical Group (10)days of the receipt of the County's comments, attempt to resolve concerns of the County relating to the proposed pumping program.
- 4. The Department shall determine appropriate revisions to the plan, provide the revised plan to the County within ten (10) days after the meeting, and implement the plan.
- 5. The April 1st pumping program may be modified by the Department during the period covered by the plan to meet changing conditions. The Department shall notify the County's Technical Group representatives in advance of any planned significant modifications. The County shall have the opportunity to comment on any such modifications.
- 6. Information and records pertaining to the Department's operations and runoff conditions shall be reported to the County's Technical Group representatives throughout the year.

VI. NEW WELLS AND PRODUCTION CAPACITY

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The Department's current groundwater pumping capacity may be increased to provide increased operational flexibility and to facilitate rotational pumping. The Department may replace existing wells and construct new wells in areas where

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hydrogeologic conditions are favorable, and where the operation of that well will not cause a change in vegetation that would be inconsistent with these goals and principles.

Prior to the Department's construction of new wells, the location of each well shall be jointly evaluated by the Technical Group as to the potential impact of its operation on the valley's vegetation and environment. The evaluation shall include the drilling of one or more test holes, if needed, to develop information on the hydrogeologic conditions at the site, an inventory and classification of vegetation that could be affected by the operation of the well, and the assessment of any other potential significant effects on the environment.

Each new well will generally reflect optimum design parameters considering location, economics, and current practice in the industry. The Department will schedule and contract for construction of the well.

An aquifer test of up to seventy-two (72) hours duration shall be conducted on each new well. One existing or new monitoring well with appropriate perforations is necessary for the aquifer test. The Technical Group shall determine the location of this monitoring well and the need for any additional monitoring wells and the length of the aquifer test.

All data generated from the well construction process shall promptly be made available to the County. The County shall make application for and obtain any well construction permits required by the County or any subdivision thereof.

It is recognized that this new well program may result in a change in the areas that would be affected by pumping from existing wells. Therefore, additional monitoring

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groundwater tables and vegetation shall be implemented necessary outside of existing management areas and monitoring requirements shall be altered or created as necessary. Technical Group shall designate a management area and monitoring site requirements for each new well. The siting and operation of the well shall be consistent with these goals and principles.

Only one well initially shall be constructed in any new area. No additional well(s) shall installed in the area until the initial well has been operated months at full intended operational for at least six (6) in order to gain information on the area and to capacity minimize the potential for adverse impacts.

During this initial period of operation, the Technical group shall monitor water levels and vegetation conditions in accordance with a jointly developed monitoring program. Additional wells may be installed by the Department in operation of the initial well indicates that would be inconsistent with these goals and principles. Monitoring wells shall be installed as necessary to evaluate any potential effects of the operation of the wells on wells not owned by the Department.

current program of replacing twelve (12) production wells with perforations only in a lower zone (Six (6) replacement wells have been drilled and continued. (6) wells are scheduled to be drilled during the 1990-91 fiscal year.)

Any production wells that are to be permanently removed from service shall be converted into properly sealed monitoring wells or shall be abandoned in accordance with state water well standards. The sealing of a monitoring well shall be designed to prevent cross flow between aquifers.

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The EIR describes the impacts of the construction and operation of fifteen (15) new wells. The construction and operation of any new wells not described in the EIR will be the subject of a subsequent CEQA review.

The Technical Group may agree that some existing wells that now supply enhancement/mitigation projects be converted to Department production wells. Wells that are the only source of supply for an enhancement/mitigation project shall not be converted. Water for the enhancement/mitigation project formerly supplied by a converted well will be supplied as necessary from Department production wells. Any enhancement/mitigation well converted to a production well could later be reverted to an enhancement/mitigation well if agreed to by the Technical Group.

VII. GROUNDWATER PUMPING ON THE BISHOP CONE

A. Any groundwater pumping by the Department on the "Bishop Cone" (Cone) shall be in strict adherence to the provisions of the Stipulation and Order filed on the 26th day of August, 1940, in Inyo County Superior Court in the case of Hillside Water Company, a corporation, et al. vs. The City of Los Angeles, a Municipal Corporation, et al., ("Hillside Decree").

Before the Department may increase ground-water pumping above present levels, or construct any new wells on the Cone, the Technical Group must agree on a method for determining the exact amount of water annually used on Los Angeles-owned lands on the Cone. The agreed upon method shall be based on a jointly conducted audit

of such water uses.

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The Department's annual groundwater extractions from the Cone shall be limited to an amount not greater than the total amount of water used on Los Angeles-owned on the Cone during that year. Annual groundwater extractions by the Department shall be the total of groundwater pumped by the Department on the Cone, amount of artesian water that flowed out casing of uncapped wells on the Cone during the Water used on Los Angeles-owned lands on the Cone, be the quantity of water supplied to such lands, including conveyance losses, less any return flow. to the aqueduct system.

B. The overall management goals and principles and the specific goals and principles for each vegetation classification of this Stipulation and Order apply to vegetation on the Cone.

VIII. GROUNDWATER RECHARGE FACILITIES

It is recognized that development of new groundwater storage, and the implementation and operation of feasible groundwater banking and recharge facilities in the Owens Valley and in the Rose Valley that will not cause significant effects on the environment may be beneficial. The development of any such facilities in the Owens Valley and in Rose Valley are subject to agreement of the Inyo County Board of Supervisors and the Department, acting through the Standing Committee. The Inyo County Board of Supervisors shall not unreasonably refuse to agree to a feasible groundwater banking facility that will not cause significant decrease or change in vegetation or a significant effect on the environment. The

EIR describes the implementation of selected groundwater recharge facilities. The operation of such facilities shall be consistent with these goals and principles. The development of any future groundwater recharge and extraction facilities not covered by the EIR will be the subject of a subsequent "CEQA" review.

IX. COOPERATIVE STUDIES

It is recognized that additional cooperative studies related to the effects of groundwater pumping on the environment of the Owens Valley are necessary. The reasonable costs of studies implemented under the Stipulation and Order or the Green Book shall be funded by the Department. If necessary, such funding will be in addition to funds provided under section XIV below.

PROJECTS AND OTHER PROVISIONS

X. ENHANCEMENT/MITIGATION PROJECTS

All existing enhancement/mitigation projects will continue unless the Inyo County Board of Supervisors and the Department, acting through the Standing Committee agree to modify or discontinue a project. Periodic evaluations of the projects shall be made by the Technical Group. Subject to the provisions of section VI, enhancement/mitigation projects shall continue to be supplied by enhancement/mitigation wells as necessary. New enhancement projects will be implemented if such projects are approved by the Inyo County Board of Supervisors and the Department, acting through the Standing Committee.

XI. TOWN WATER SYSTEMS

Los Angeles shall transfer ownership of the water systems in the towns of Lone Pine, Independence, and Laws to

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the County or to another Owens Valley public entity or entities. The transfer of ownership will be for a price of one dollar (\$1.00) per water system. The method of transfer will be a lease purchase agreement wherein the transfer of the ownership of each system will be complete at the end of five (5) years from the date of entry of this Stipulation and Order.

Prior to the transfer of the water systems, and the Department will jointly select and will have independent engineering firm inspect each of the systems for compliance with all applicable requirements (including water quality) of the California Department of Health Services and other agencies, and perform a structural assessment of the Independence Reservoir including its ability to withstand The costs of this inspection shall be funded seismic events. by the Department. Prior to the transfer of the systems, the Department will make any repairs or alterations necessary to bring each distribution system into compliance with all applicable requirements.

During the five (5) year lease period, Los Angeles shall be responsible for the operation and maintenance of the wells, pumps, reservoirs and chlorination equipment supplying the water systems of the three towns. Treated water shall be supplied by the Department as needed to each of the three town water systems at no cost up to the annual amounts set forth below:

| System | Amount in Acre Feet |
|--------------|---------------------|
| Lone Pine | 550 |
| Independence | 450 |
| Laws | 50 |

The County (or other public entity operating the water system) shall pay the Department for water used in excess of these totals in an amount that would reflect the actual incremental cost to the Department of operating and maintaining the wells and reservoirs to provide the excess amount.

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during the five (5) year lease period, the will improve the Independence town reservoir, Department needed, to provide a facility with an expected service life of at least fifteen (15) years with routine maintenance and meets all applicable Department of Health Services Further, the Department, at its option, shall either upgrade the reservoir as needed to meet seismic requirements agreed upon by the Inyo County Board of Supervisors the Department, or shall fully repair any damage to the reservoir caused by earthquake during a fifteen (15) year period the transfer of the water system. The Lone Pine shall be replaced by the Department with reservoir with a five hundred thousand (500,000) gallon capac-(Once a replacement well and the new reservoir are ity. groundwater shall no longer be exported via the Angeles aqueduct from the wells supplying the Lone Pine Water System.)

During the five (5) year lease period, the County or the public entity or entities shall set the water rates for the three town water systems, operate and maintain all components of the water systems (except the wells, pumps, chlorination equipment, and reservoirs), begin the transition for operating and maintaining the chlorination equipment, handle all billing and related matters, and establish a capital

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reserve fund for replacement of components of the systems in the event of emergency or deterioration.

At the end of the five (5) year lease period, the County or other public entity or entities shall assume total ownership and operation of each town water system, except that the Department shall continue to own and operate the wells. The Department shall supply untreated water to each water system at no cost up to the annual amounts described above. The County (or other public entity) operating each water system shall pay the Department for water used in excess of these totals in an amount that reflects the actual incremental costs of supplying water in excess of these totals.

recognized that Los Angeles has leased town water system in Big Pine to the Big Pine Community Services District. It also is recognized that the lease requires certain considerations favorable to the District in the of a permanent transfer of the town water systems in the other Owens Valley towns as part of an overall settlement of litigation. In view of this, the same benefits and opportunities be provided to the Big Pine water system as will are available to the three other Owens Valley water systems. This providing untreated water to the includes system without charge up to five hundred (500) acre feet per year.

XII. LOWER OWENS RIVER

The parties, together with the California Department of Fish and Game will complete a management plan that is now in preparation for the Lower Owens River by June 1, 1992. The County and the Department shall actively seek to secure funding for the construction and operation of the Lower Owens River Project from the State of California and from other

funding sources. Construction of the project shall be commenced by the Department within three (3) years after Court approval of this Stipulation and Order unless otherwise agreed by the Inyo County Board of Supervisors and the Department. Prior to implementation, the project will be the subject of a CEQA review separate from the EIR which describes this Stipulation and Order.

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The project plan will include the construction of a pumpback station from the river near Keeler Bridge to the The pumpback system will be capable Angeles aqueduct. pumping up to fifty cubic feet per second (50 cfs) the to the aqueduct. Due to seasonal fluctuation the the river, the average annual pumping in flow any year approximately thirty-five cubic feet Will exceed per The plan will also provide that water second (35 cfs). releases would be made to the river above Blackrock Gate on the Los Angeles aqueduct (but below the aqueduct intake), that the existence of off-river lakes and ponds now supplied by existing project will be continued, and for a water release from the pumpback station to supply the southern end river and the Delta. It is recognized that the release to the southern end of the river and the Delta may be constrained the legal requirements concerning the Department's release of water to Owens Lake.

In addition to the above, the management plan will provide for, but not be limited to, the following:

- The water flow and schedules needed to maintain a healthy and productive warm water fishery in the lower Owens River and in the off-river lakes and ponds.
- The specific water diversion and release points to

supply the project.

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- The locations of ponds and pools in and adjacent to the Lower Owens River, and the proposed methods to manage these to produce and maintain a viable fishery.
- The requirements for channel maintenance.
- The plans for fish stocking.
- The plans for tule and other plant control in the river and the off stream ponds and lakes.

The Department shall construct, operate, and main-The total cost of the construction tain the pumpback system. of the pumpback system, new release structures, channel and other necessary work for initial operation fications, the project is estimated by the Department to be approximately one-half million dollars (\$7,500,000.00). The seven and shall fund the initial construction costs of Department project and the State of California, the County other or shall contribute fifty percent of actual costs up to million hundred fifty thousand dollars three seven (\$3,750,000.00) to the Department. The Department for the annual cost of operating the pumpback system less any funds received from other non-County sources. Once the project has been constructed and completed, the Department and the County would jointly operate and fund the non-pumpback portions of the project.

In the event that Inyo County is required to fund any portion (up to \$3.75 million) of the costs of constructing the Owens River pumpback system, Los Angeles shall loan Inyo County the amount of the County's share of such costs. The County shall repay such loan without interest and shall make annual payments in the amount of three hundred thousand dol-

lars (\$300,000.00) until the loan is fully repaid.

XIII. HAIWEE RESERVOIRS

The Department shall conduct and finance seismic studies required by the California State Department of Water Resources to determine if South Haiwee Dam can be safely operated at reduced storage levels. If such operations are allowed, the Department and the County shall develop a recreation plan for South Haiwee reservoir, and the Department shall open this facility to public recreation pursuant to the plan. The recreation plan will be implemented and operated by the County or by a concessionaire.

In the event that the continued operation of South Maiwee is not allowed, the parties shall jointly develop a recreation plan for North Haiwee Reservoir and such plan will be implemented if it is feasible to do so. Any plan must take into consideration Los Angeles' operating and security needs. The plan must also take into consideration the fluctuations of water levels and the requirements for water treatment.

XIV. FINANCIAL ASSISTANCE

A. SALT CEDAR CONTROL

The Department shall provide funding to the County for an initial three (3) year salt cedar control effort and for an annual maintenance and control effort in the Owens Valley area. This effort shall be conducted by Inyo County. The salt cedar control effort will be commenced as soon as feasible following entry of this Stipulation and Order.

The initial salt cedar control effort will be focused on those acres on the valley floor identified in

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the Technical Group's "Salt Cedar Control Study Report" as having a high density of salt cedar composition. The following is the priority for implementation of control:

- 1. Lower Owens River Channel
- 2. Tinemaha Reservoir and Owens Valley north of Tinemaha Reservoir
- 3. Perennial Streams, Canals, and Ditches
- 4. Springs and Seep Areas
- 5. High Water Table Meadows
- 6. Spreading Areas that Normally Receive Water
- 7. Spreading Areas that Receive Water Only in Very High Runoff Years

The annual control program will be based same control priorities as described above. The funding of the initial three (3) year program shall three hundred fifty thousand dollars (\$350,000.00) two hundred thousand the first year and dollars (\$200,000.00) for the second and third years. A three hundred fifty thousand dollar (\$350,000.00) payment shall be made by the Department to the County within sixty (60) days of entry of this Stipulation and Order. Thereafter, the second and the third year payments shall be made by twelve (12) months and twenty-four (24) months after the first payment, respectively.

The first annual maintenance and control effort payment shall be made to the County by July 10th following the making of the last payment of the initial three (3) year program. This payment shall be in the amount of fifty thousand dollars (\$50,000.00). Thereafter, each annual payment shall be made by July 10th, and the

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amount of each payment shall be the previous year's ment adjusted upward or downward each year in accordance the Los Angeles - Anaheim - Riverside All Urban Price Index or its successor. The maximum Consumers shall not exceed five (5) percent adiustment The annual payment shall be placed in trust year. the County and will be used only for the purposes of salt If, at anytime, one hundred fifty thoucontrol. sand dollars (\$150,000.00) or more is accumulated in the the Department shall not be required to make additional payment until such time as the funds are less than fifty thousand dollars (\$50,000.00) The annual funding for on June 30th of any year. cedar would continue unless the Inyo County Board and the Department, through the Standing Supervisors Committee, agree that the salt cedar control program to be reduced in scale or terminated. It is recognized even with an initial and an annual control effort, cedar may not be fully controlled in the Owens Valley.

B. PARK REHABILITATION, DEVELOPMENT, AND MAINTENANCE

The Department shall provide funding as provided herein to the County for rehabilitation of existing County parks and campgrounds, development of new County campgrounds, parks, and recreational facilities and programs, and for the annual operation and maintenance of existing and new facilities and programs. These facilities are now, and will be, located on lands owned by the City of Los Angeles.

During the ten (10) years following entry of

this Stipulation and Order, the County will rehabilitate certain existing parks and campgrounds and develop certain new parks, campgrounds, recreational facilities and programs. These facilities will be developed in accordance with a master plan now being prepared by the County, or in accordance with any future plans developed by the County.

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first facilities considered for Among the rehabilitation will be the Pleasant Valley Campground, Creek Campground, Dehy Park, and Diaz the first new facilities and programs considered Among development will be certain campgrounds along River from Pleasant Valley Reservoir to the Owens Owens Delta, and a recreational use and management plan River that reach of the Owens River. for The construction of facilities and any significant changes in existing facilities will be subject to a CEQA review.

During this ten (10) year period, the Department shall provide up to two million dollars the County for the above purposes. (\$2,000,000.00) to The amount of funds provided in any year shall be based upon the work to be undertaken on such activities by County during that year. The funds provided may only be used by the County for the purposes described above text.

To financially assist the County in the operation and maintenance of existing and new parks, recreational facilities and programs operated by the County on lands owned by the City of Los Angeles, the Department shall make an annual payment to the County. The initial

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shall be made within sixty (60) days of entry of this Stipulation and Order. If the entry Stipulation and Order occurs during the month of July, the payment would be one hundred thousand dollars (\$100,000.00). If entry of this Stipulation and occurs between August 1st and June 30th, the payment shall the sum of one hundred thousand dollars be (\$100,000.00) prorated. The proration shall be based upon the month of the July-June fiscal year when entry of this Stipulation and Order occurs. For example, if entry of this Stipulation and Order occurs in either January June, the payment would be five twelfths of one hundred thousand dollars (5/12 of \$100,000.00), one one hundred thousand dollars twelfth of (1/12)of \$100,000.00), respectively.

After the initial payment, an annual payment shall be made by July 10th of each year, and the amount the payment for the first full fiscal year following final approval shall be one hundred thousand dollars (\$100,000.00). Each year thereafter, the amount of shall be the previous year's annual payment adjusted upward or downward each year in accordance the Los Angeles - Anaheim - Riverside All Urban Consumers Index or its successor. The maximum adjustment Price not exceed five (5) percent in any shall year. The funding shall be placed in trust by the County annual shall be used only for the purposes of operation and of existing and new parks, recreational maintenance facilities and programs. If at anytime three hundred thousand dollars (\$300,000.00) or more were to be accumu-

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lated in the trust, the Department shall not be required to make an additional annual payment until such time as the funds in the trust are less than one hundred thousand dollars (\$100,000.00) as of June 30th of any year. This annual funding shall continue unless the Inyo County Board of Supervisors and the Department agree that the operation and maintenance program is to be reduced in scale or terminated.

WATER AND ENVIRONMENTAL ACTIVITIES

Department shall assist the County The 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 this Stipulation and Order by both the County and Angeles. The amount of the first payment shall the sum of eight hundred twenty thousand five hundred 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 Angeles - Anaheim - Riverside All Urban Consumers Price its successor. Each year thereafter, Index or of the annual payment shall be the amount of previous year's payment adjusted in accordance with said price index. The maximum adjustment not exceed five (5) percent in any year. Annual

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.

GENERAL FINANCIAL ASSISTANCE TO THE COUNTY

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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-

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eighty-five dollars one thousand six hundred (\$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 Each year thereafter, the amount Constitution. the annual contribution payment shall be the amount the previous year's payment adjusted in accordance with formula.

In the event that Los Angeles' existing geothermal leases in the Coso Geothermal area 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.

E. BIG PINE DITCH SYSTEM

The Department shall provide up to one hundred thousand dollars (\$100,000.00) for reconstruction and upgrading of the ditch system and for construction of additional ditches to supply additional properties in the town of Big Pine. The ditch system must be planned, constructed, operated, and maintained by a Big Pine entity or organization separate from the Department or the County, except for existing ditches on Los Angeles-

owned land which will continue to be maintained by the Department. This entity or organization must obtain all necessary rights of way prior to construction.

The Department shall make a flow of up to six (6) cfs available to supply the ditch system with water. This is in addition to water now diverted for use by Big Pine Water Association members. Water to replace any water used by this project will come from a new well, which will be constructed by the Department west of Big Pine. This well may also supply water to the Big Pine Water System.

The stockholders of the Big Pine Water Association must approve the use of existing ditches. The Department (a stockholder) shall not unreasonably refuse such approval, or unreasonably refuse the right to use or modify existing ditches on Los Angeles-owned property. Water rights of all stockholders must be protected and current water delivery rates maintained.

Provisions will be made to insure that the project funds will only be made available to an appropriate entity or organization and only will be made available as construction of the Big Pine ditch system or other approved projects progresses. Any costs of constructing the ditch system in excess of one hundred thousand dollars (\$100,000.00), must be secured prior to commencement of funding of the construction of the ditch system. Project funds would only be made available if substantial construction of the ditch system is commenced within two (2) years of the entry of this Stipulation and Order. If such construction is not commenced within this

period, unless otherwise agreed by Board of Supervisors and the Department, through Standing Committee, the funds shall be used project other than a ditch system. If less than \$100,000 is expended on the ditch system, or if no ditch is constructed, the unexpended difference may be used by the Big Pine entity or organization on other projects Big Pine that have been approved in advance by the Department and the Inyo County Board of Supervisors, acting through the Standing Committee. PARK AND ENVIRONMENTAL ASSISTANCE TO CITY OF BISHOP To financially assist the City of Bishop in the

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operation and maintenance of its park and other mentally related activities, the Department shall make annual payment to the City of Bishop. The first annual payment shall be made within sixty (60) days of entry of this Stipulation and Order. If entry of Stipulation and Order occurs in the month of July, payment will be one hundred twenty-five thousand dollars If entry of this Stipulation and Order (\$125,000.00). occurs between August 1st and June 30th, the payment be the sum of one hundred twenty-five thousand shall dollars (\$125,000.00) prorated as set forth in paragraph Thereafter, the annual payment shall be made above. by July 10th of each year, and the amount of each paybe the previous year's payment adjusted ment shall downward each year in accordance with the Los orAngeles - Anaheim - Riverside All Urban Consumers Price or its successor. The maximum adjustment will exceed five (5) percent in any year. Except as

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provided below, Inyo County shall make an annual payment to the City of Bishop in an amount equal to the payment made by the Department during that year; provided however, in any given year this obligation of the County shall be completely satisfied by its payment to the City of Bishop pursuant to Inyo County Code Section 3.40.010 et seq. (transaction and use tax) regardless of the amount of such payment.

XV. RELEASE OF CITY OWNED LANDS

A. INYO COUNTY

Inyo County, in order to provide for the future orderly development of towns within the County, reguested Los Angeles to offer for sale seventy-five (75) acres of Los Angeles-owned land within the general areas designated by the boundaries noted on the maps attached Exhibit B. In order to cooperate with the County's request, Los Angeles agrees to offer for sale, either at public auction or to the County for public purposes, said seventy-five (75) acres, consistent with the requirements the Los Angeles City Charter for the sale of real To ensure that any sales of the seventy-five property. acres furthers the County efforts for the development of the towns within Inyo County, the parties further agree to jointly confer on the location of, schedule for, the sale of each parcel pursuant this paragraph. As part of such orderly development, the parties further agree that prior to the sale of any such parcels, there must be available a public water system to serve such property after its sale.

Because the location of the proposed sale of

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the seventy-five (75) acres is sufficiently determined in this Stipulation and Order, by its approval of this document, Los Angeles City Council grants approval, as required by the Los Angeles City Charter, for the Board of Water and Power Commissioners to subsequently engage in the actual sale of individual parcels. The terms of each sale will be subject to approval by the Los Angeles City Council.

The area of any property that is undeveloped as of the date of entry of this Stipulation and Order, located within the designated release areas, and sold by Los Angeles after entry of this Stipulation and Order will be credited against the seventy-five (75) acre total. Each such sale is subject to a CEQA review.

B. <u>CITY OF BISHOP</u>

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addition to the sales described above, Angeles will sell at public auction, or sell directly to the City of Bishop or the Bishop Community Redevelopment Agency, properties within the Bishop City limits totaling twenty-six (26) acres of surplus Los Angeles-owned land. Such sales are subject to the Los Angeles City Charter. location of each property and the schedule for sale must be agreed upon by the City of Bishop and Angeles. Each parcel sold must be located within general designated by boundaries on the attached Authorization to sell up to twenty-six (26) of surplus properties within designated release is granted by the Los Angeles City Council by its approval of this Stipulation and Order. By this approval, the Department's Board of Water and Power Commissioners is

authorized to act on behalf of the City in approving conducting such sales. However, the terms of each sale subject to approval by the Los Angeles City is subject to a CEQA review. Noth-Each sale in these concepts precludes the City of Los and the City of Bishop from reaching an agreement for the sale of all or part of the twenty-six (26) acres prior to entry of this Stipulation and Order. Any land will be credited against the twenty-six (26) acre total.

C. ADDITIONAL SALES

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In addition to the above described sales, request of the Inyo County Board of Supervisors Bishop City Council, Los Angeles shall negotiate in good for the sale at public auction of additional faith plus Los Angeles-owned land in or near valley towns for specific identified needs. such sales shall Any subsequent to those described above. A precondition of a sale would be that a public water system must be available to serve each property after its sale. Each such sale would be subject to a CEQA review. Ιt is recognized that such sales at public auction may take considerable time, and that such sales require approval of the Department's Board and the Los Angeles City Council, and must be in compliance with the Los Angeles City Decisions on this matter by the Department's Board of Commissioners and the Los Angeles City Council shall not be subject to dispute resolution.

D. LANDS FOR PUBLIC PURPOSES

Los Angeles shall negotiate in good faith for the sale or lease to the County of any Los Angeles-owned

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land requested by the County for use as a public park or for other public purposes. Any sale of land shall be at fair market value and any land sold must be within or adjacent to valley towns.

E. WITHDRAWN LANDS

Because of the above provisions for land Inyo County will support passage of legislation pertaining to federally owned lands in Inyo County. Such legislation is to be in substantially the same form as the draft of such legislation discussed by the parties in the fall of 1987, except proposed legislation will be modified to allow lands Valley which might be used in conjunction with a groundwater storage program to remain in withdrawn status. The County will support such legislation even though the status of such withdrawn lands is under review by the Federal Bureau of Land Management as part of the new Bishop Resources Area Management Plan.

XVI. LEGISLATIVE COORDINATION

Except as provided below, the County and Los Angeles shall refrain from seeking or supporting any legislation, administrative regulation, or litigation that would weaken or strengthen local or state authority to regulate groundwater or that would affect any provision of this Stipulation and Order.

A. Neither the County nor Los Angeles may sponsor, take a support position, or seek to amend any legislation or administrative regulation or initiate any litigation that would directly affect any provision of this Stipulation and Order or that would weaken or strengthen local

authority to regulate groundwater unless such sponsorship, support, amended position or litigation is first approved by the other party.

B. Neither the County nor Los Angeles may take a position in opposition to any legislation or administrative regulation that could directly affect any provision of this Stipulation and Order or that would weaken or strengthen local authority to regulate groundwater without first notifying the other party and attempting to reach concurrence on the proposed course of action. Failure to reach agreement on the proposed course of action will not preclude either party from opposing such legislation.

XVII. EXCHANGE OF INFORMATION AND ACCESS

The County and the Department shall make any data or information in its possession that reasonably pertains to purposes of this Stipulation and Order available to the other party on reasonable notice. The County and the Department recognize that such a free exchange of data and information is essential to the purposes of this Stipulation and Order.

The County and the Department shall provide to the other party reasonable access to its wells, water conveyance, metering devices, control structures, etc. for the purpose of such independent monitoring and inspection as is necessary to carry out the implementation of this Stipulation and Order.

XVIII. HEALTH AND SAFETY CODE PROJECTS

Any project implemented pursuant to California Health and Safety Code section 42316 is not a part of this Stipulation and Order.

XIX. LEASE CHARGES

Los Angeles or its Department shall have the right

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2.1. 28 to seek and use funding from a lessee if a new enhancement/mitigation project is developed on lands leased by the lessee from Los Angeles and the project will increase the value of the lease. Such funding may be obtained through mormal Department ranch leasing practices.

Except as provided above, lease charges and/or charges for water supplied by Los Angeles and its Department its Owens Valley lessees may not be increased creased, or altered in any way, as a result of any provision this Stipulation and Order. This provision is not construed as preventing rent increases which the determine to implement in the ordinary course of following its usually applicable practices and principles the determination of the need for rent increases, capitalization of improvements, or land reclassification.

XX. HOLD HARMLESS

The County and the Department and the City of Los Angeles shall keep and hold each other free and harmless from any and all cost, liability, damage, or expense including cost of suit or expense for legal service claimed by anyone by reason of injury or damage to person or properties sustained in or on or about any enhancement/mitigation project, mitigation measure, or monitoring site as proximate result of acts or omissions of a party, its agents, servants or employees, or arising out of any condition of the property occupied by an enhancement/mitigation project, mitigation measure or monitoring site or arising out of the operation of the parties upon, about or above the property occupied by an enhancement/mitigation project, mitigation measure or monitoring site.

Except as may be provided above, this provision does

not, and shall not be construed to require the County of Inyo, its employees, agents, or consultants to keep and hold harmless the City of Los Angeles, its Department, or any of their employees, agents, or consultants, from any cost, liability or damage, or other relief claimed or sought by anyone, or any organization or entity, that arises out of the Department's water gathering activities in Owens Valley, including its groundwater pumping and its surface water management, or that arises out of the management of its lands by the City of Los Angeles.

XXI. NO EFFECT ON NON-PARTY LEGAL RIGHTS

This Stipulation and Order is not a limitation of the legal rights of any person, organization, or entity that is not a party to this Stipulation and Order, nor does it create a binding administrative remedy that must be pursued and exhausted prior to the exercise of any legal right by such non-parties to this Stipulation and Order.

XXII. NO EFFECT ON EXISTING WATER RIGHTS

Any water right of either the County or of Los Angeles or of any other person existing prior to the entry of this Stipulation and Order will not be adversely affected, directly or indirectly, by this Stipulation and Order. No water right of any kind, including but not limited to prescriptive water rights, nor any claim thereto, shall arise or be created in favor of or against any party or other person, directly or indirectly, as a result of this Stipulation and Order.

XXIII. FUTURE AQUEDUCT CAPACITY

Los Angeles and its Department shall not construct a third aqueduct to carry water from Inyo County or enlarge

the capacity of the two existing aqueducts above the maximum flow in each aqueduct that occurred before July 1, 1989. The maximum flow for each aqueduct is set forth in the Department's Daily Flow Records.

XXIV. ACKNOWLEDGMENT OF WATER SUPPLY UNCERTAINTIES

Angeles and the County acknowledge that there certain risks in maintaining current and projected supplies to Los Angeles. These foreseeable risks are a possireduction in diversions by Los Angeles from the contamination of San Fernando Valley Mono Basin. the Groundwater Basin, uncertainty in the amount of water Sacramento/San Joaquin Delta, a reduction now available Colorado River supplies to Southern California and reasonably foreseeable population growth in Los Angeles and California. Such foreseeable risks shall not be a basis for a future request to a court to terminate this Stipulation and Order absent agreement by the Inyo County Board of Supervisors, the Department, and the City of Los Angeles.

XXV. MODIFICATIONS

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If, as a result of information gained from ongoing research or cooperative studies, or for other reasons as may be necessary to better achieve the goals of this Stipulation and Order, or for purposes of improving the monitoring and evaluation activities, the Department and the Inyo County Board of Supervisors, by agreement, may modify: 1) any provision of the Green Book, including its provisions for monitoring sites, the type of monitoring, and the interpretation of monitoring results; 2) the Management Areas (section I); 3) the Management Maps (section II); and 4) the soil moisture "triggering mechanism" for turning off wells (sections V.A, B,

and C), including a substitution of an entirely new "triggering mechanism." A disagreement over such a modification shall be subject to dispute resolution. The remaining provisions of this Stipulation and Order, other than those identified above, may be modified by agreement between the Department and the Inyo County Board of Supervisors, and approval of such modification by the Court. Approval by the Court shall be upon written noticed motion. Notice shall be given in accordance with California Civil Procedure Section 1005, and published in Los Angeles and Inyo counties in accordance with Government Code Section 6062a.

XXVI. DISPUTE RESOLUTION

A. SUBJECT MATTER

Subjects of dispute resolution include, but are not limited to:

- Whether a decrease or change in vegetation or a potential significant effect on the environment is attributable to groundwater pumping or a change in surface water management practices.
- Whether a significant decrease or change in vegetation or a significant effect on the environment has occurred.
- 3. A reclassification of vegetation inside or outside a management area.
- 4. The location of monitoring sites or monitoring wells, the type of monitoring to be conducted at a site, or the interpretation of monitoring results.
- 5. A change in the contents of the "Green Book."
- 6. The need for mitigation or type of mitigation.

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- 7. The linkage of wells to monitoring sites and the area of the monitoring site where soil water must recover.
- 8. A disagreement over whether or not the "triggering mechanism" based on soil moisture should be modified or changed to a different triggering concept.
- 9. Whether a well turned off under the provisions of section V should be turned on.
- 10. Consistency of a proposed pumping program with the goals and principals of this Stipulation and Order.
- 11. Disagreements over additional cooperative studies.
- 12. Whether water quality or water levels in a well not owned by the Department has been significantly adversely affected by groundwater pumping by the Department.
- 13. Any other matter covered by or arising out of the Stipulation and Order or the Green Book.

B. TECHNICAL GROUP AND STANDING COMMITTEE

Disputes between the parties arising out of this Stipulation and Order or the Green Book shall be submitted to the Technical Group and the Standing Committee for resolution as follows:

1. <u>Technical Group Requirements</u>

Within fourteen (14) calendar days of the receipt of a written request from either party, the Technical Group shall convene for the purpose of attempting to resolve a disagreement over a matter which is to be decided by the Technical Group, or upon which the Technical Group is required to make a

recommendation to the Standing Committee. Ιf the Technical Group agrees on a resolution, that shall be submitted to the Standing consideration and implementation if by the Standing Committee. In the event with the Technical Group is unable to resolve a is unable to make a unanimous recommendation to Standing Committee, the Technical Group written report to the Standing Committee explaining the areas of agreement, if subject or subjects of disagreement, and each ty's argument in favor of its position along with supporting data and background. This report shall made within seven (7) calendar days after Technical Group meeting, unless the Technical by unanimous vote, agrees to a longer time period.

Standing Committee Requirements 2.

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Within fourteen (14) calendar days of receipt of such a written report of disagreement Technical Group, the Standing Committee from the shall convene concerning the subject of the Additionally, within fourteen (14) days of of a written request from either party, the Standing Committee shall convene for the purpose of hearing any matter which is to be determined by the Standing Committee, or a disagreement between the parties.

MEDIATION/TEMPORARY ARBITRATION C.

If the Standing Committee is unable to resolve a dispute or claim within twenty-one (21) days of the receipt of a Technical Group report or a written request to meet, either party may submit the disputes or claims for mediation/temporary arbitration. Such a submittal shall be made by so notifying the Standing Committee in writing.

Mediation/temporary arbitration shall be conducted by three (3) mediators unless a single mediator is agreed upon by the Standing Committee. One (1) mediator shall be selected by Inyo County and one (1) mediator shall be selected by the Department. The two (2) mediators selected by the parties shall select a third mediator.

In the event of mediation, each party will pay own costs and one-half of the costs of the mediatheir If, by the forty-fifth (45th) day after tion. invoked mediation, there is no mediated resolution, has shall present written findings the mediators These findings shall be submitted to Standing Committee. the Standing Committee not later than the sixtieth (60th) day after mediation was invoked by a party. Unless agreed by the Standing Committee, the and the Department shall immediately implement and follow findings of the mediators. Any recommendation finding of the mediators must be based upon the "goals" and "principles" and other provisions of this Stipulation and Order, the Green Book, or the EIR.

D. SUPERIOR COURT JUDGE

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If a dispute or claim has not been resolved through mediation/temporary arbitration, a party may submit that dispute or claim for resolution to the Superior Court Judge then assigned to Inyo County Superior

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12908, by filing with Judge, No. the and serving upon the other party, a memorandum which sets the disagreement, the party's contentions, forth its favor of its position, and in any supporting evidence and points and authorities. The memorandum be filed and served within fifteen (15)calendar days after the issuance of written findings by the mediaboth parties agree in writing to time The other party may file а responsive period. memorandum that sets forth its view of the disagreement, its contentions, its arguments in favor of its position, any supporting evidence and points and authorities. memorandum shall be filed and served upon party within fifteen (15) days of the service the initiating papers.

Not later than fifteen (15) calendar days after service of any responsive memorandum, or of the date serving such a memorandum if none is filed, the parties file with the Judge a joint memorandum forth all the relevant factual and legal issues which they agree, and all the factual and legal issues to resolved, together with any additional supporting rebutting evidence and any additional points and authori-The Judge will set the matter for hearing, ties. narily within fifteen (15) calendar days after the of filing the joint memorandum. The Judge shall endeavor to issue a decision on the unresolved factual and issues as soon as possible, ordinarily within twenty (20) days after the hearing.

Failure of a party to file the initiating

memorandum with the Court within fifteen (15) calendar days, precludes a submission of the particular dispute or claim to the Judge.

In the event that the present Superior Court Judge presiding over Inyo County Superior Court Case No. 12908 ceases to act, the Chair of the Judicial Counsel shall be requested to assign a successor judge from a neutral County. The parties shall have the right of challenge pursuant to the California Code of Civil Procedure. The parties will at the time of the request attempt to nominate to the Chair of the Judicial Council a neutral judge or judges to serve as the successor judge.

E. EFFECT OF COURT RESOLUTION

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The decision of the Judge shall be binding on the parties. No appeal of the Judge's decision may be made, except as provided in California Code of Civil Procedure, section 1284, and sections 1285 through 1294.2, provided that the time limit to serve and file a petition to confirm pursuant to section 1288 shall be reduced to one hundred eighty (180) days.

XXVII. INYO SUPERIOR COURT CASE NO. 12883

Nothing in this Stipulation and Order shall affect Inyo County Superior Court Case No. 12883 (the EIR case brought by Los Angeles concerning Inyo County's Groundwater Ordinance).

XXVIII. INYO SUPERIOR COURT CASE NO. 12908

A final order in Inyo County Superior Court Case No. 12908 on this Court's ruling on Inyo County's Groundwater Ordinance shall not be entered or filed. Additionally, during

1 3 4 the County of Inyo Owens Valley Groundwater Management Ordi-5 nance, Inyo County Ordinance No. 395; provided however, that the Inyo 7 County Water Department and Inyo County Water Commission may 8 remain in existence to carry out the provisions of this Stipu Q lation and Order. 10 tion and Order, the County will not seek any appellate review 11 County Superior Court Case Number 12908. 12

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ENTRY OF JUDGMENT XXIX.

implementing this Stipulation may be entered in accordance herewith without further notice to the parties.

the ruling, decision, or injunction of this Court in

of this Stipulation and Order, the County,

servants, officers and employees, and all other

applying, implementing, or enforcing in any manner whatsoever,

enrolled as Chapter 7.01 of the Inyo County Code,

in concert with the County, are enjoined

Further, during the term of this Stipula-

per-

PARAGRAPH HEADINGS XXX.

The paragraph titles herein are for convenience only and do not define, limit, or construe the contents of paragraphs.

XXXI. NOTICES

Any notices hereunder from the County to the its Department shall be in writing and may be personally delivered or sent by certified mail to the following addresses:

> Assistant General Manager - Water Los Angeles Department of Water and Power P.O. Box 111, Room 1455 Los Angeles, California

> Northern District Engineer Los Angeles Department of Water and Power 300 Mandich Street Bishop, California 93514

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The City and its Department may change said address by notice in writing to the County.

notices hereunder from the City and Department to the County shall be in writing and may be personally delivered or sent by certified mail to the following addresses:

> County Administrator County of Inyo Post Office Drawer N Independence, California 93526

Director Inyo County Water Department 163 May Street Bishop, California 93514

The County may change said address by in Notice shall be Writing to the City and its Department. considered given either (a) when delivered to the recipient, or (b) on the date shown on the return receipt when deposited.

OCT 18 1991 18 1991 Dated: Dated:

PAUL N. BRUCE, County Counsel GREGORY L. JAMES, Special Counsel EDWARD C. FARRELL, Chief ANTONIO ROSSMANN, Special Counsel Assistant City Attorney

JAMES K. HAHN, City Attorney EDWARD A. SCHLOTMAN

Attorneys for Plaintiffs City of Los Angeles and Department of Water and Power of the City of

Assistant City Attorney

Los Angeles

Attorneys for Defendants County of Inyo

Robert H. Campbers Chairman, Inyo County Board of Supervisors

Inyo County

Board of Supervisors

Tom Bradley, Mayor city of Los Angeles /

John Ferraro President, City Council Ci/ty of Los Angeles

Joan Milke Flores Councilwoman City of Los Angeles

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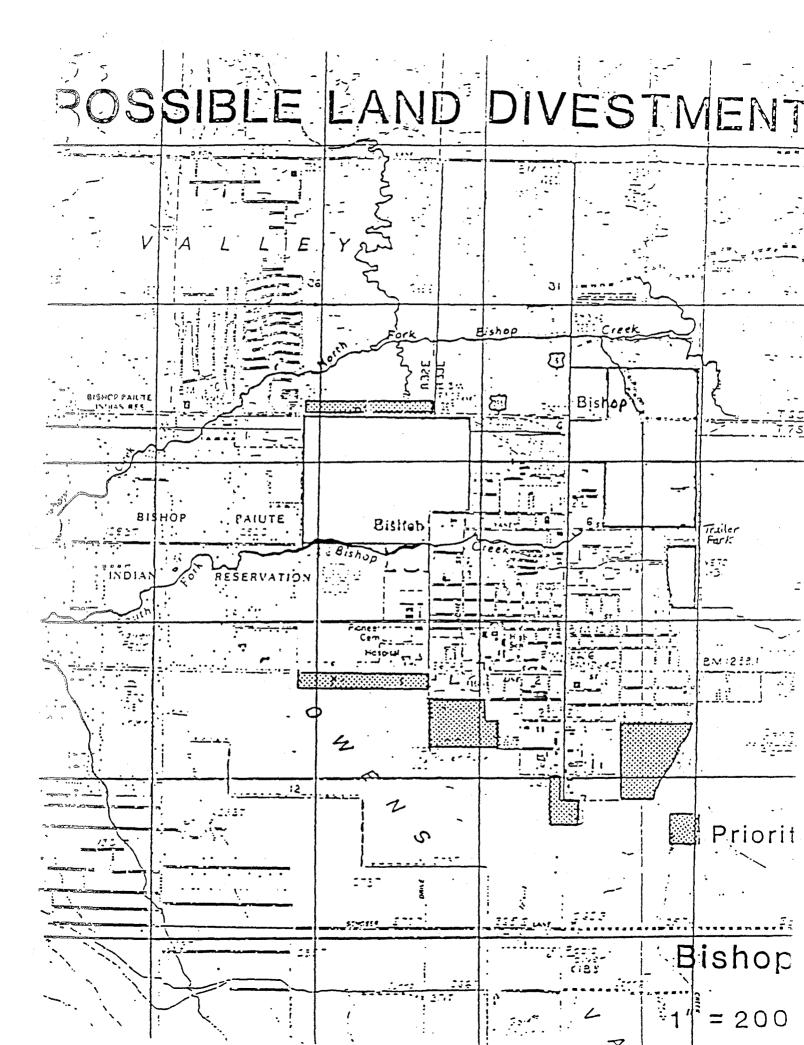
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Water Commission
Ray Gray
Vice Chairman, Inyo county
Water Commission

President, Los Angeles
Board of Water & Power Cmsn.

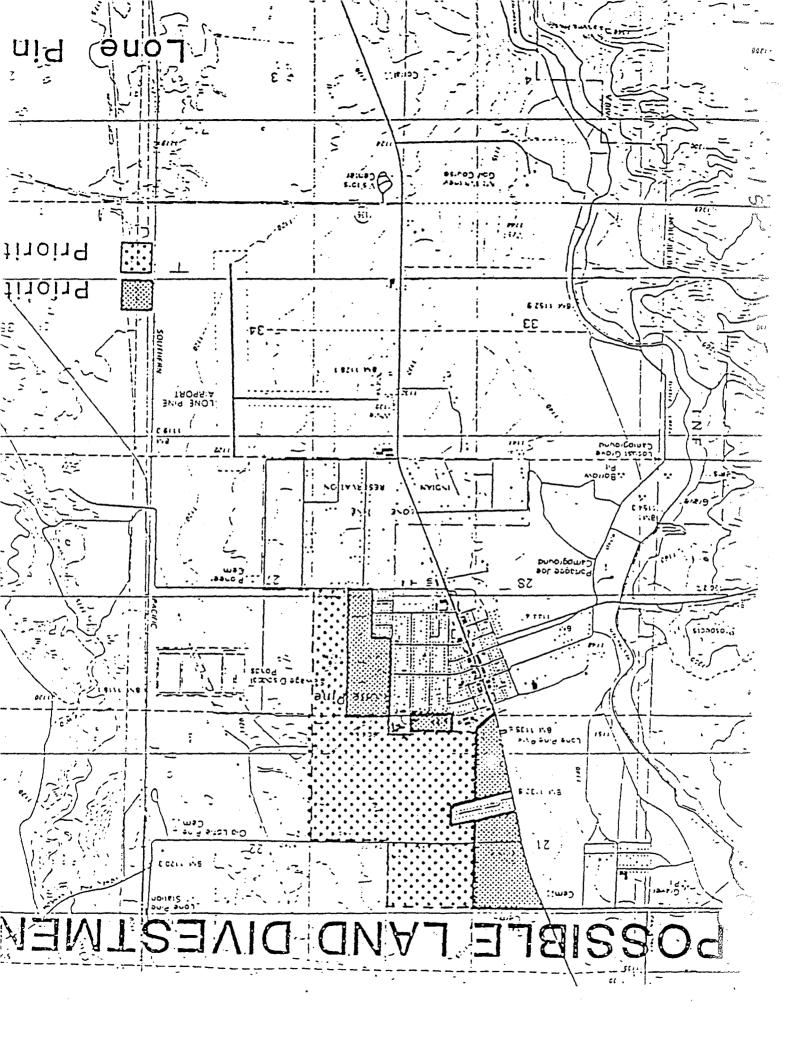
Rick Caruso
Chairman, Standing Committee
Vice President, Los Angeles
Board of Water & Power Cmsn.

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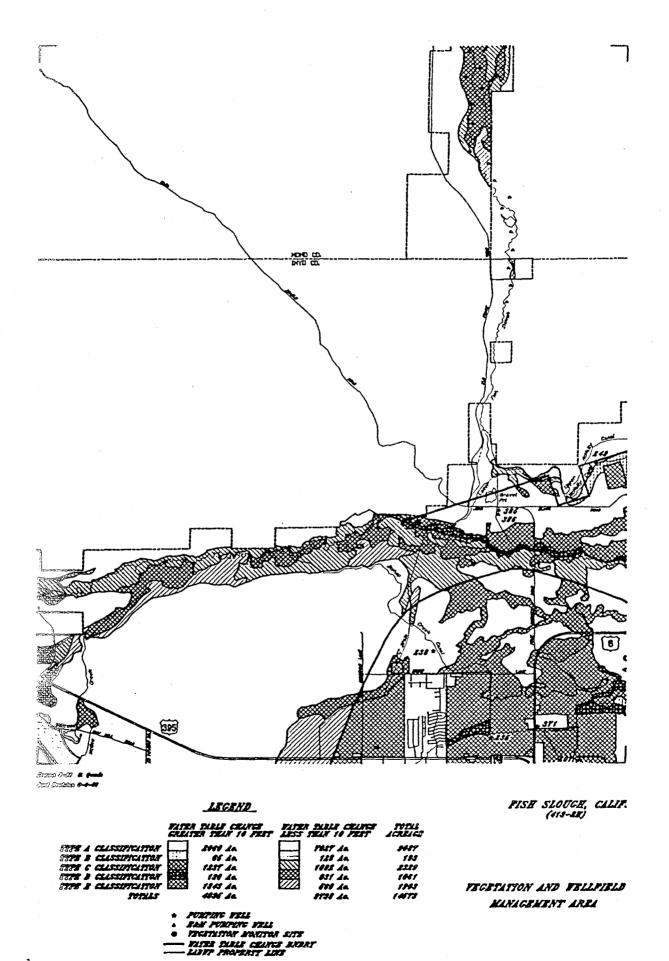


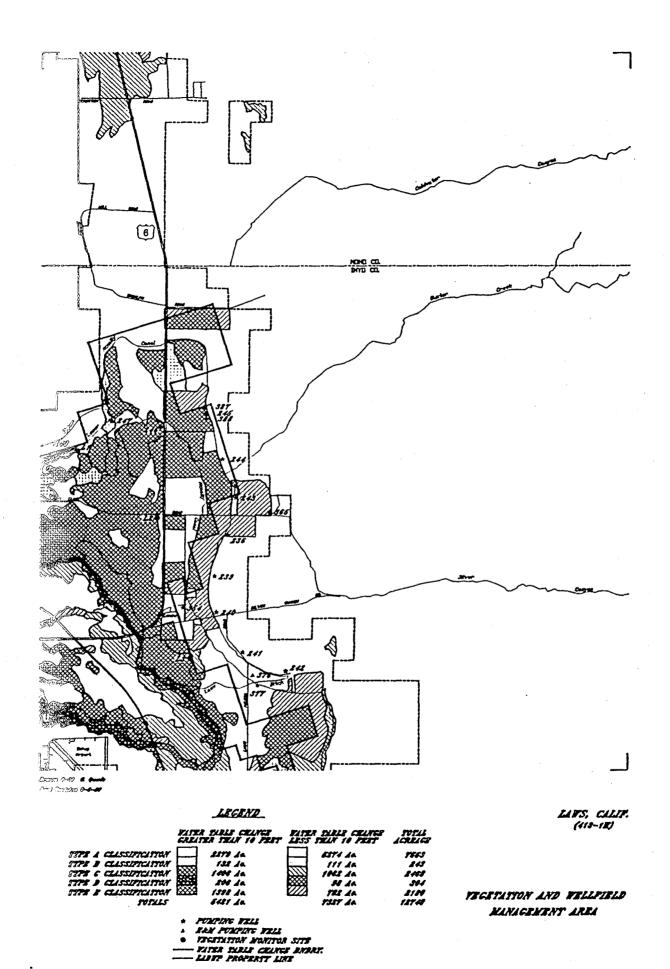


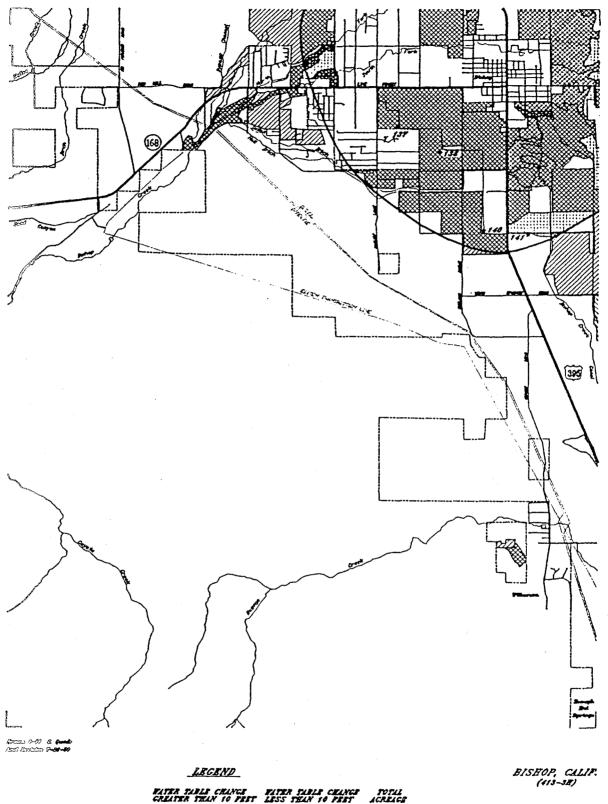
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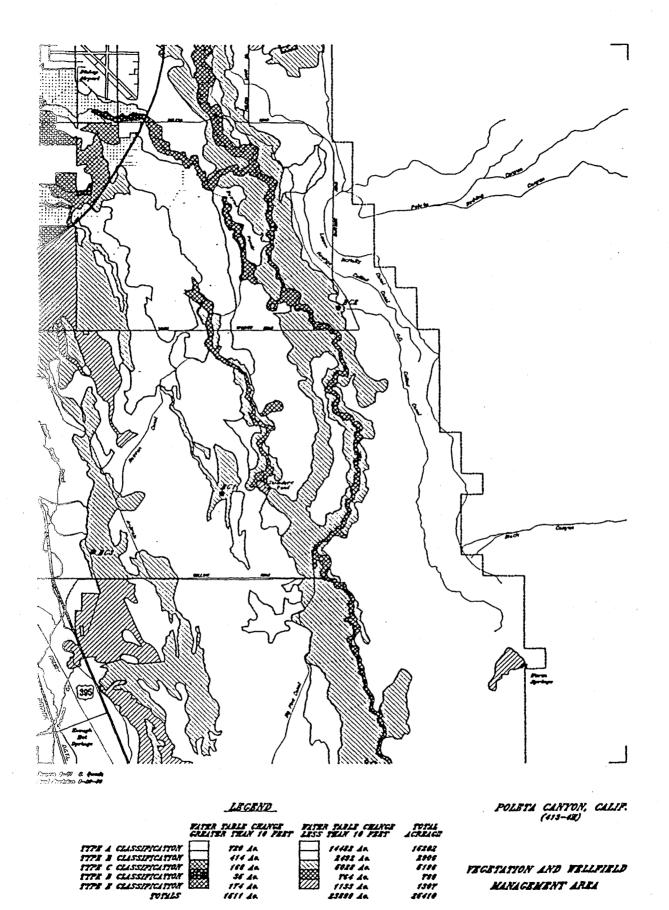
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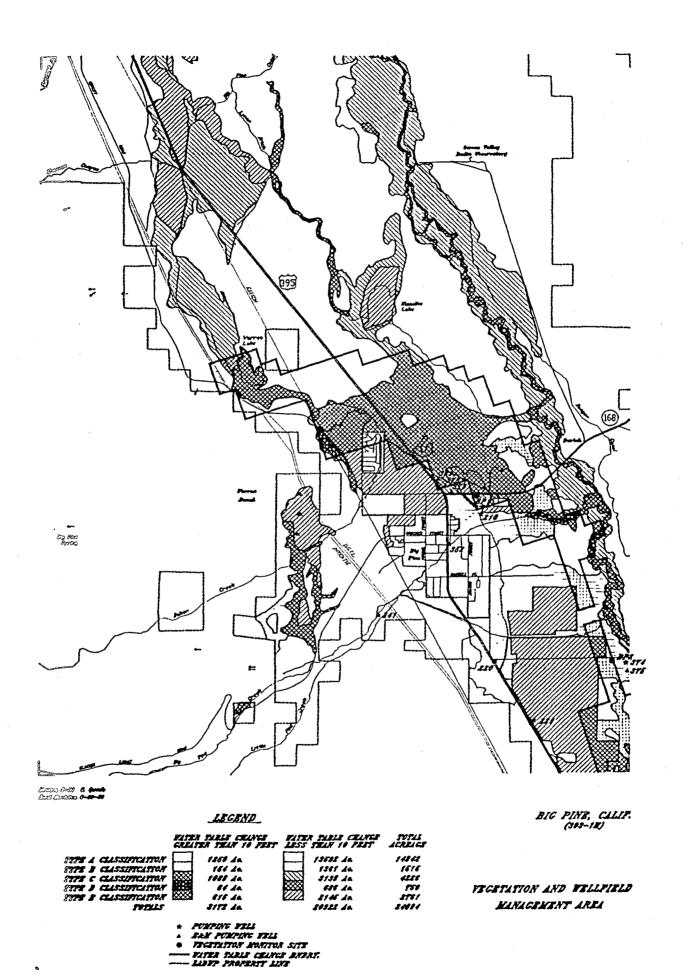
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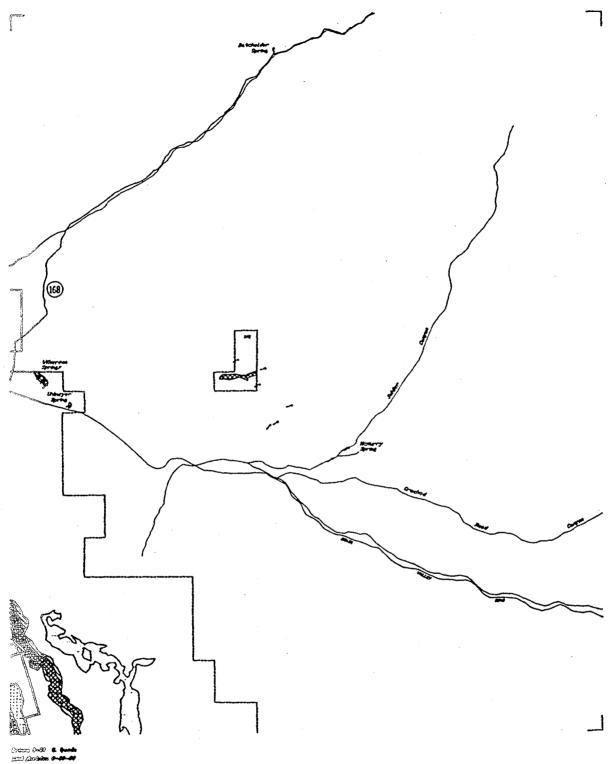
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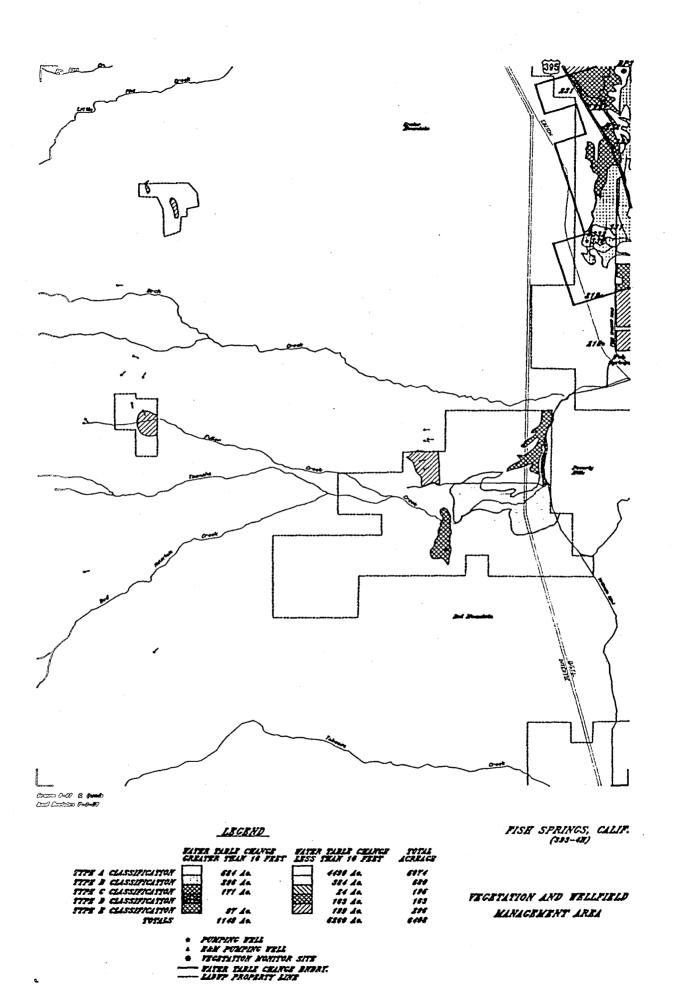
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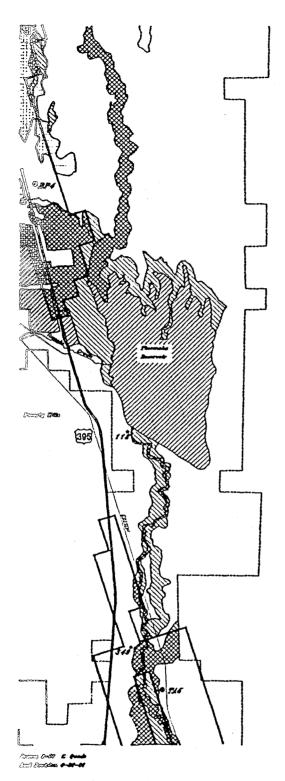
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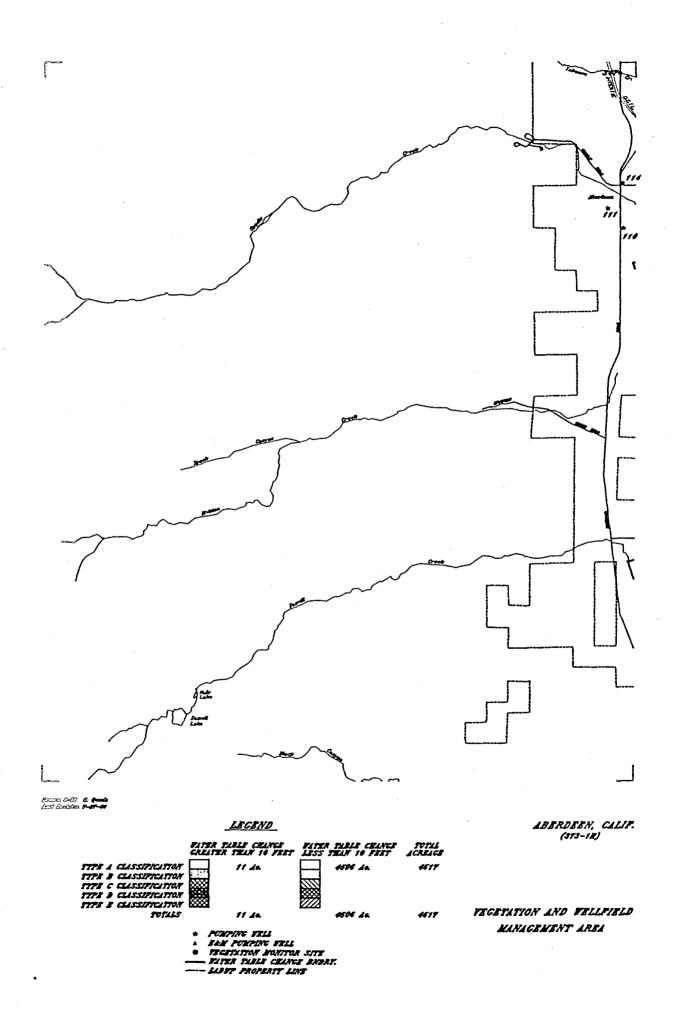
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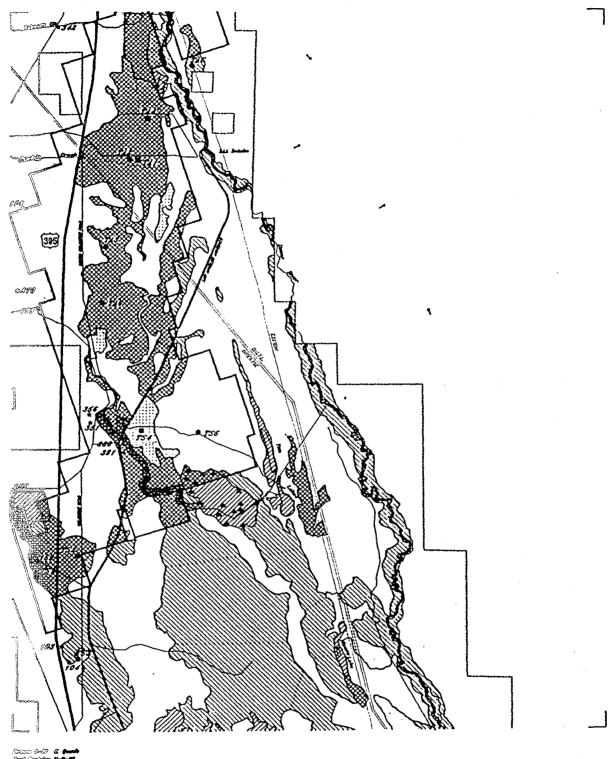
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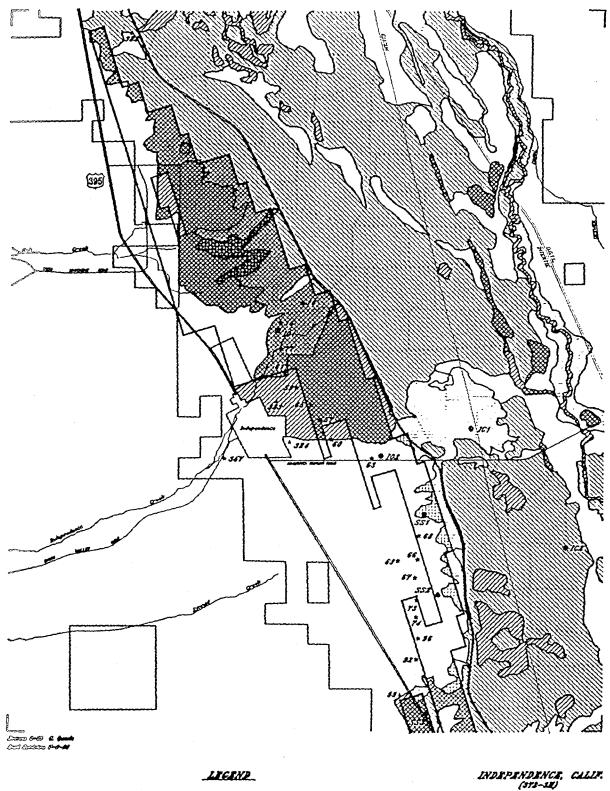
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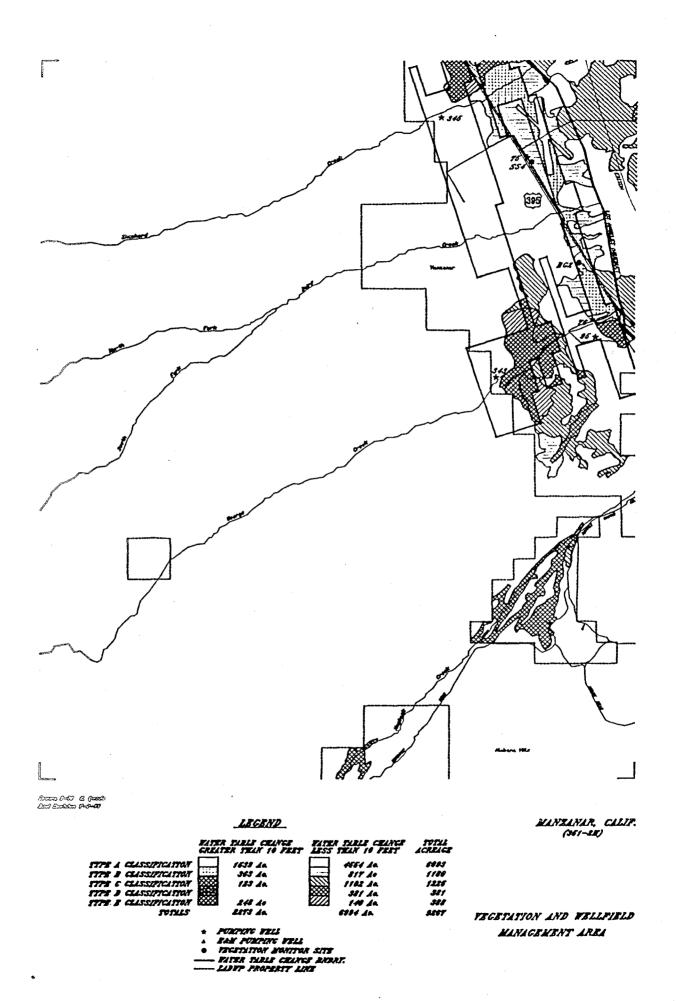


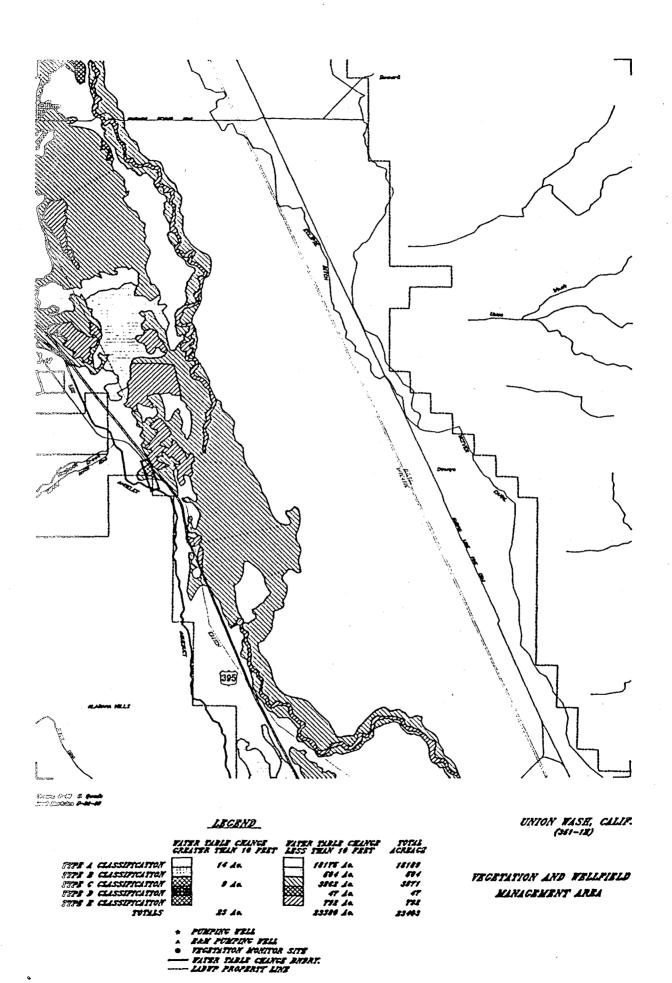
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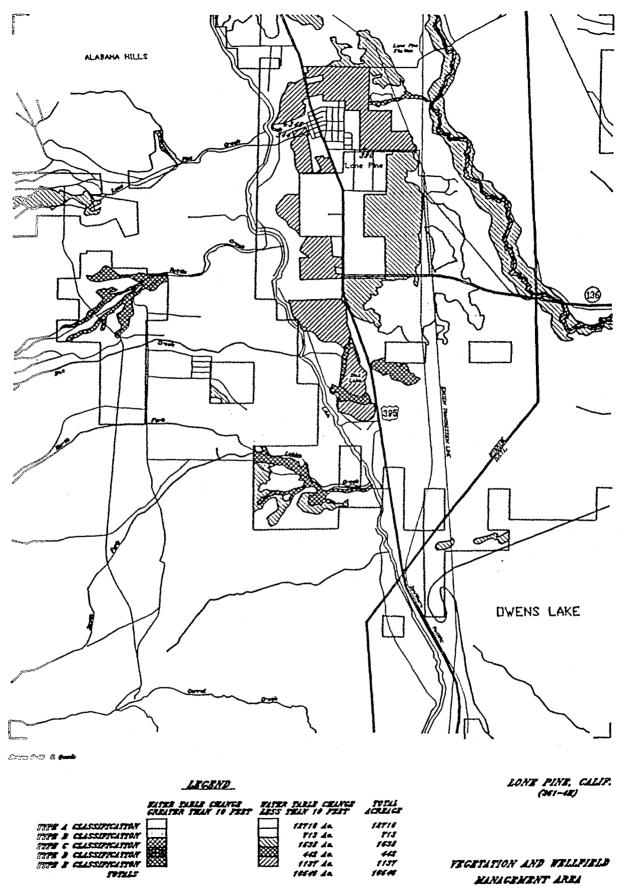
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August 1, 1989

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 THE OWENS VALLEY AND INYO COUNTY

SUPPLEMENTAL INFORMATION

Technical Group:

The draft agreement provides that the Inyo/Los Angeles Technical Group will play an important role in making determinations called for in the agreement. The Technical Group is comprised of up to ten people, five of whom are appointed by the Inyo County Board of Supervisors and five of whom are appointed by the Department of Water and Power. Inyo County and the Department each have only one vote on the Technical Group.

Inyo County's representatives to the Technical Group curmently are hydrologist, Bill Hutchison, plant ecologist, David Groeneveld, County Administrator, Brent Wallace, and County Counsel/Water Director, Greg James. The County's representatives to the Technical Gruop have been directed by the Board of Super-visors to take no final action on a matter pending before the Technical Group without first consulting with the Board. Written summaries of Technical Group meetings are distributed to the Standing Committee, the Board of Supervisors, the County Water Commission and the public. A copy of the Memorandum of Under-standing between Inyo County and the Department of Water and Power which establishes the Technical Group and the Standing Committee is attached as "A."

Dafinitions:

Paragraph III(c) on page 5 of the draft agreement provides that the terms "mitigation" and "feasible" are to be defined as under "CEQA" as of July 1, 1989. The definitions of these terms as set forth in CEQA on July 1, 1989 are set forth on attachment "B."

Groundwater Mining:

Paragraph III (B) on page 4 of the draft agreement provides that annual groundwater pumping will be managed so that the total pumping in a well field area over a 20 year period does not

excessed the total recharge to the same well field area over the same period. It also provides that the Technical Group will determine the total recharge to each well field area over each 20 year period using information developed by USGS and other relevant information.

A memorandum from the Technical Group to the Standing Committee presenting a summary of recharge and pumping for water years 1968-69 through 1987-88 is attached as "C." This memorandum presents a sample of how recharge and pumping may be determined by the Technical Group as required by the draft agreement.

Grand Book:

Paragraph III (E) on page 6 of the draft agreement describes a technical document called the "Green Book." The "Green Book" is not a policy document. All policies of the agreement are set forth in the draft agreement; the "Green Book" only describes the technical procedures that implement the policies of the agreement.

The "Green Book" is not fully compiled in written form at present, but it will be available before the release of a draft ZIR on the agreement. Because the Green Book is not now available, the Technical Group has prepared a memorandum to the Standing Committee that describes the contents of the "Green Book" and details of how soil moisture available to plants is calculated. This soil moisture calculation is used to determine whather wells are to be turned off or turned on. A copy of the memorandum is attached as "D."

"Blabon Cone":

Paragraph VII on page 23 of the draft agreement addresses groundwater pumping on the "Bishop Cone." In response to inguiries as to the boundaries of the "Bishop Cone," a map of the "Cone" is attached as "E."

CEON GUIDELINES DEFINITIONS (July 1, 1989)

Misignsion:

"Mitigation" includes:

- A. Avoiding the impact altogether by not taking a Gertain 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.
- E. Compensating for the impact by replacing or provid-
- (Guidelines for Implementation of the California Environmental Quality Act Section 15370)

reasible:

"Feasible" means capable of being accomplished in a successgul manner within a reasonable period of time, taking into ageount economic, environmental, legal, social and technolegical factors.

(California Environmental Quality Act - California Public Resource Code section 21061.1)

Exhibit "B"

HEMOPARDUM OF UNDERSTANDING

- 1. By this Agreement, the parties intend to work together to identify and recommend methods to meet the needs of the Owens Valley and its water users and the needs of the City of Los Angeles and its water users. CCUNTY and the DEPARTMENT lesire a Groundwater Study of the Owens Valley to be made by the UNITED STATES GEOLOGICAL SURVEY.
- 2. Standing Committee and Technical Group. Each party shall select representatives to serve on the Standing Committee. The Standing Committee shall select representatives to serve on a technical group.

The DEPARTMENT representatives on the Standing

Committee shall include at least one (1) member of the LOS

NNGELES CITY COUNCIL, two (2) members of the

COARD OF WATER AND POWER COMMISSIONERS, and three (3) staff

members. The COUNTY representatives on the Standing Committee

The theil be at least one (1) member of the INTO COUNTY BOARD OF

SUPERVISORS, two (2) INTO COUNTY WATER COMMISSIONERS, and three

(* staff members. The Standing Committee shall meet at least

Every two (2) months to review and discuss reports and

recommendations from the Technical group; to discuss and suggest resolutions to differences between the parties; to issue reports; to make recommendations to the appropriate governing bodies of the parties.

- than five (5) representatives selected by COUNTY and five (5) by DEPARTMENT. The Technical Group shall meet at least every two (2) months to exchange information and data, including forecasts. It runoff and surface and groundwater operations; to review work and data as available from other studies; to report to the Standing Committee on the progress of any other studies; to recommend to the Standing Committee that additional studies be conducted which are aimed at resolving factual differences between the parties; and to perform any additional duties aguested by the Standing Committee.
- A. Neither the Technical Committee nor the Standing Committee shall make a recommendation as called for herein without first obtaining a majority vote of both the DEPARTMENT'S representatives and the COUNTY'S representatives to such Committee. In the event that such majority votes cannot be obtained on the Technical Committee, the Technical Committee shall submit a comprehensive report to the Standing Committee is the nature of the disagreement.

IN WITHESS WHEREOF, the parties hereto have executed is Agreement on the day first written above.

- 2 -

. By

Chailman

COUNTY OF INYO

JOARD OF SUPERVISORS

by Milman B. Wuth
Chairman

DEPARTMENT OF WATER AND POWER
OF THE CITY OF LOS ANGELES
by
BOARD OF WATER AND POWER
COMMISSIONERS OF THE CITY OF
LOS ANGELES

By homof Mulley/phy

no Michael

Secretary

A LO GEZNORIEN

MEMORANDUM

TO: STANDING COMMITTEE

FROM: TECHNICAL GROUP

DATE: AUGUST 1, 1989

RE: ANALYSIS OF OWENS VALLEY GROUNDWATER RECHARGE AND

PUMPING -- 1968-69 THROUGH 1987-88 WATER YEARS

(OCTOBER 1 - SEPTEMBER 30)

The August 1, 1989 version of the proposed long-term agreement contains a definition for groundwater mining that relies on a comparison of pumping and the estimated recharge over a twenty year period. The definition states that annual pumping will be managed so that the total pumping from any well field area over a twenty year period does not exceed the estimated recharge to the same well field area over the same twenty year period. In order to advise the Standing Committee on the resent pumping and recharge history of the various well field areas in the Owens Valley, this memorandum presents a summary of recharge and pumping for the water years 1968-69 through 1987-88. These years were included in the period considered by the United States Geological Survey (USGS) during their modeling and study of the Owens Valley groundwater flow system.

The USGS estimate for recharge for the entire Owens Valley for the period is over 3.3 million acre-feet (approximately 191,000 acre-feet/year). The total recharge has been distributed into hydrologic subzones, or well field areas, for the purposes of comparing recharge and pumping. The number of hydrologic subzones, or well field areas, is a subject of technical disagreement between Los Angeles and Inyo. Los Angeles subdivides the Valley into six zones (Laws, Bishop, Big Pine, Taboose-Thibaut, Independence-Symmes-Bairs, and Lone Pine. Inyo subdivides the Valley into seven zones, differing only in the separation of the Taboose-Thibaut area into two areas, Taboose-Aberdeen and Thibaut-Sawmill. There is also disagreement on the flow of secharge from Oak Creek; Los Angeles believes that Oak Creek recharges the Independence-Symmes-Bairs (ISB) well field area, while Inyo believes that 50 percent of Oak Creek recharges the ISB area and 50 percent recharges the Thibaut-Sawmill area. These disagreements do not affect the conclusion of this analysis and should be resolved in the future through a detailed evaluation of the groundwater flow system of the area in question.

Summary tables for the northern three well field areas (Laws, Bishop, and Big Pine), and the Lone Pine area are attached along with two versions of the Taboose-Aberdeen, Thibaut-Sawmill, and Independence-Symmes-Bairs well fields areas. These tables show both total estimated annual recharge and annual pumping for the twenty year period.

The summary tables indicate that under either the Los Angeles or Inyo approach, pumping has not exceeded recharge over the twenty year period in any area. Therefore, groundwater mining has not occurred under the agreed upon definition. Recent drought conditions (high pumping and low runoff) have caused groundwater levels to decline in all areas of the valley. Based on an analysis of past pumping, runoff and water levels, it is expected that water levels will recover after one or more years of high runoff and low pumping, except in the Fish Springs and Black Rock batchery areas where continuous pumping of groundwater is required and has created localized depressions of water levels.

It should be recognized that the recharge estimates and subzone delineations were developed for the 1968-69 to 1987-88 period. As pumping amounts and patterns change, the amount of recharge and the distribution of hydrologic subzones may change. It will be necessary to analyze total recharge, recharge components, water level changes, and groundwater flow patterns in the future to determine recharge conditions for any future twenty year period in order to comply with the requirement that groundwater mining not occur.

ELECTRICAL OF 1968-69 TO 1987-88 ESTIMATED RECHARGE AND HISTORICAL PUMPING AMMED UPON SY LOS ANGELES AND INYO - ALL VALUES IN ACRE FEET

| YEAR | LAV3 | | BISHOP | | BIG PINE | | LONE PINE | |
|------------------|----------------|---------|----------|----------|----------|---------|-----------|---------|
| (OCT-SEP) | eecharce | PUMPING | RECHARGE | PUMP ING | RECRARGE | PUMPING | RECHARGE | PUMPING |
| 48-69 | 38282 | 0 | 73212 | 0 | 56899 | 534 | 24695 | 1260 |
| 69-70 | 90671 | 2616 | 42589 | 0 | 27968 | 2219 | 13705 | 2154 |
| 70-71 | 10307 | 21020 | 37128 | 0 | 22770 | 26715 | 11410 | 2014 |
| 71-72 | 9@125 | 28541 | 34956 | 2363 | 20443 | 41621 | 10298 | 2357 |
| 72-73 | 9 0797 | 22510 | 43444 | 7593 | 28291 | 21493 | 14486 | 2364 |
| 73-74 | 98060 | 8528 | 44547 | 1516 | 28934 | 13009 | 14555 | 2350 |
| 74-75 | 13440 | 8982 | 39921 | 2415 | 24540 | 32314 | 12396 | 1958 |
| 75-76 | 90035 | 15138 | 34365 | 4867 | 19386 | 28566 | 9740 | 2167 |
| 76- 7 7 | 9871 | 15661 | 33275 | 11281 | 17402 | 29603 | 8716 | 2103 |
| 77.78 | 33109 | 7773 | 53628 | 2758 | 40701 | 34355 | 17650 | 2685 |
| 7 8 - 7 9 | 12672 | 6533 | 43754 | 5420 | 30831 | 25796 | 13410 | 2038 |
| 7 9-8 0 | 24903 | 12511 | 55732 | 2364 | 41866 | 26614 | 18600 | 1762 |
| 80-81 | 12461 | 12338 | 41543 | 6919 | 26287 | 27211 | 12587 | 1673 |
| 81-82 | 23619 | 14525 | 54900 | 6271 | 39513 | 24302 | 18690 | 1306 |
| 82-83 | 33780 | 1038 | 70015 | 11 | 54567 | 25543 | 23928 | 1250 |
| 83.86 | 11760 | 6854 | 54462 | 3773 | 34321 | 27154 | 17457 | 1772 |
| 184.85 | 10913 | 10016 | 43998 | 9777 | 26655 | 26937 | 13616 | 2197 |
| 83-86 | 31218 | 9953 | 60341 | 1809 | 47990 | 25054 | 20541 | 2439 |
| 86-87 | 12405 | 21220 | 38440 | 9558 | 22817 | 38946 | 11775 | 1660 |
| 67-48 | 12 837 | 22486 | 34703 | 10900 | 20630 | 33667 | 10896 | 1389 |
| POTAL | 74 2963 | 248243 | 936953 | 89595 | 632811 | 511653 | 299351 | 38898 |
| average | 17148 | 12412 | 46848 | 4480 | 31640 | 25583 | 14968 | 1945 |

GUMMARY OF 1968-69 TO 1987-88 ESTIMATED RECHARGE AND HISTORICAL PUMPING LOS ANGELES VERSION - ALL VALUES IN ACRE-FEST

| RABY | TABCOSE-TRIBAUT | | IND-BYX-BAIRS | IND-BYX-BAIRS | | |
|----------------|-----------------|---------|---------------|----------------|--|--|
| (007-82P) | RECEARGE | PUMPING | recharge puni | DHIG | | |
| 68-69 | 56757 | 3501 | 93425 66 | 52 | | |
| 69-70 | 28899 | 2546 | 43602 292 | 19 | | |
| 70-71 | 23903 | 21482 | 35304 2388 | 32 | | |
| 71-72 | 21404 | 48158 | 31186 3981 | 14 | | |
| 73-73 | 30650 | 39503 | 46194 3189 |) 6 | | |
| 73 ∽9 4 | 30900 | 28239 | 46938 1867 | 7 B | | |
| 74-75 | 26151 | 40240 | 38998 1629 | 9 | | |
| 73-76 | 20153 | 53114 | 29122 2964 | 11 | | |
| 78-77 | 17905 | 44712 | 25430 2319 |) O | | |
| 77-78 | 38863 | 33383 | 57921 2357 | 12 | | |
| 73-79 | 28651 | 15030 | 43181 378 | 12 | | |
| 79 -8 0 | 41747 | 28047 | 61243 1429 | 77 | | |
| 3 9≈5 1 | 26401 | 21354 | 39522 470 | 12 | | |
| 3]-82 | 40751 | 26429 | 61736 805 | 54 | | |
| 53~ 83 | 55008 | 14433 | 80496 31 | 18 | | |
| 89-84 | 40498 | 13691 | 57130 36 | 57 | | |
| 34095 | 28651 | 27460 | 43210 878 | 38 | | |
| 25-26 | 47264 | 27325 | 67894 784 | 13 | | |
| 85-87 | 23651 | 53314 | 35398 3254 | 12 | | |
| 87-88 | 21154 | 55195 | 31648 4034 | 18 | | |
| TOTAL | 649361 | 597156 | 959578 33127 | 73 | | |
| average | 32468 | 29858 | 47979 1656 | 54 | | |

INYO VERSION - ALL VALUES IN ACRE FELT

| RELE | Taboose-aberdeen | | TRIBAUT-SAWHILL | | IND-SYH-BAIRS | |
|-------------------------|------------------|---------|-----------------|---------|---------------|---------|
| (9CT-8 EP) | RECHARGE | PARBING | RECHARGE | DUNDING | RECEARGE | PUNPING |
| 43×69 | 41651 | 3460 | 25784 | 41 | 72748 | 662 |
| 49-7D | 21572 | 3207 | 12702 | 339 | 38338 | 2929 |
| 70-71 | 17433 | 19304 | 10751 | 2178 | 31023 | 23852 |
| 73073 | 15364 | 44241 | 9775 | 3917 | 27452 | 39814 |
| 73 -7 3 | 23022 | 28742 | 13385 | 10761 | 40437 | 31596 |
| 73074 | 23230 | 14240 | 13482 | 13999 | 41126 | 18678 |
| 74-75 | 19295 | 27821 | 11629 | 12419 | 34225 | 16299 |
| 73 -7 6 | 14327 | 40383 | 9287 | 12731 | 25661 | 29641 |
| 7 6-77 | 12465 | 30084 | 8409 | 14628 | 22461 | 23190 |
| 77-73 | 28818 | 19511 | 17333 | 13872 | 50633 | 23572 |
| 73 -79 | 21367 | 6174 | 12604 | 8856 | 37861 | 3782 |
| 79 ~\$0 | 30472 | 16010 | 19000 | 12037 | 53518 | 14297 |
| 30- 3 1 | 19503 | 10624 | 11726 | 10730 | 34695 | 4702 |
| 3 J ~ 8 2 | 30681 | 15410 | 17850 | 11019 | 53956 | 8054 |
| 3 3 0 2 2 | 40202 | 3829 | 25101 | 10604 | 70202 | 318 |
| 33-84 | 28404 | .3183 | 19273 | 10508 | 49952 | 367 |
| 4-83 | 21367 | 15063 | 12604 | 12397 | 37890 | 8788 |
| 33 -8 6 | 33787 | 14643 | 22077 | 12682 | 59294 | 7842 |
| ∃ଣ∞87 | 17226 | 34862 | 10652 | 18452 | 31172 | 32542 |
| 87-38 | 15156 | 37450 | 9678 | 17745 | 27969 | 40348 |
| TOTAL | 475342 | 387241 | 293102 | 209918 | 840503 | 331273 |
| average | 23767 | 19362 | 14655 | 10496 | 42025 | 16564 |

HUCKLROHER August 1, 1989

ଅ© : Standing Committee TROM: Technical Group

RE: SUMMARY OF KEY GREEN BOOK PROVISIONS

The "Green Book" is a technical document written to describe the monitoring sites, activities and interpretations. purpose for the Green Book is to set forth the techniques to 12010ment the management goals specified in the Inyo County and CASY of Los Angeles Agreement.

The Green Book is an adjunct document separate from the Inyo/Los Angeles Agreement. The terms in the Agreement are mutually agreed to and should not change. The Green Book, however, is based upon scientific research. Its contents and procedures may be changed as better understanding for environmental management is gained through further study. , Maintaining the Green Book as a separate document from the Agreement ensures flexibility to encorporate new information.

The Green Book consists of two major sections dealing with hydrology and issues for vegetation management. In combination, these sections will set forth:

- Selection of monitoring sites and technique for tying pumping wells to monitoring sites.
- Procedure for testing and evaluating new well locations.
- Testing whether groundwater mining is occurring.
- Vegetation mapping techniques and incorporation of the
- existing vegetation inventory for management.
 Monitoring leaf area and soil water, interpreting the data and projecting plant water balance.
- Large scale vegetation monitoring by air photographs and satellite data.

CALCULATION OF THE SOIL WATER AVAILABLE TO PLANTS

One extremely important consideration of the Green Book is Ros Eurning off pumping wells when insufficient soil water is pradicted through monitoring to maintain the vegetation at its gresent cover. This calculation determines the water available for plant use at each site and projects whether sufficient water will be available in the soil to maintain the vegetation through one or more growing seasons. The water available to plants is sompared to transpiration needs for a growing season or portion of a growing season. If a deficit condition is predicted at a memitoring site, the pumping wells that affect the groundwater levels at that site are turned off.

Monitoring sites have been chosen in the Owens Valley wellfields that are representative of large areas of vegetation and soils. Control sites, located in zones that are unaffected by groundwater pumping are used to determine the response of

makive vegetation to drought conditions alone. At these sites, the shallow water table fluctuates due to natural conditions and not to groundwater pumping.

The amount of soil water use by plants from transpiration is calculated for each species according to leaf area using set curves with respect to time. These curves were determined during 5 years of intensive field study in the Owens Valley. The projected water use for each species is then summed to yield an estimate of the water required by the total vegetation cover.

Vegetation cover is determined by highly accurate transects which are measured at each monitoring site. For comparison of leaf area or cover among growing years and for purposes of calculating water requirements, the vegetation is subjected to these transects during a three week period centered around the summer solstice (June 21).

Soil water monitoring at each site relies upon psychrometers which are very sensitive and accurate instruments used to evaluate soil water potential. The sensors are implanted in triplicate within the root zone of the vegetation at the center of one meter soil slices to a depth of four meters.

Soil water potential, measured by psychrometers, is converted to soil water content using a soil water characteristic function based upon soil particle surface area and interpreted by the quadratic formula. The soil water that is available to each of the major plant species inhabiting the Owens Valley floor is then calculated by subtraction of the theoretical limiting soil water from the actual soil water present within each one-meter and alice in the root zone.

The limiting soil water content is calculated for each onemeter soil slice by the calibrated characteristic function with
reference to the lower limiting water potentials for the major
plant species interpreted as a function of depth. The lower
limits of survival for water stress were determined in specially
designed greenhouse studies. Functions for applying the lower
water potential limits by depth were determined under field study
as sites with controlled water table drawdown. These functions
reglact the decreasing density of roots with depth.

Total available soil water is calculated as the sum for each ensumeter slice of soil. The available water in the top two onemeter slices are added to calculate the amount of water for grasses. For shrubs, the top four ons-meter slices are added.

Finally, the total available water is then compared to the estimated needs of the vegetation. If there is a projected dadigit, the affecting well must be turned off. If the well has been shut off in the past to protect the vegetation but a sufficient surplus of soil water has become available to meet plane water requirements back when the deficit was predicted, the well may again be operated safely.

