VOLUME II
Appendices
Environmental Impact Report

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

- 1970 TO 1990
- 1990 ONWARD, PURSUANT TO A LONG TERM GROUNDWATER MANAGEMENT PLAN

SCH #89080705

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

Technical Assistance Provided by
EIP Associates

September 1990

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A. NOTICE OF PREPARATION

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR

GEORGE DEUKMEJIAN Governor

OFFICE OF PLANNING AN. RESEARCH
1:00 TENTH STREET
SACRAMENTO, CA 95814

DATE: August 8, 1989

TO: Reviewing Agencies

RE: The City of Los Angeles' NOP for the Increase Pumping o the Owens Valley Groundwater Basin Project.
SCH# 89080705

Attached for your comment is the City of Los Angeles' Notice of Preparation of a draft Environmetnal Impact Report (EIR) for the Increase Pumping to the Owens Valley Groundwater Basin Project.

Responsible agencies must transmit their concerns and comments on the scope and content of the EIR, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of this notice. We encourage commenting agencies to respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Mr. John A. Davis
EIP Associates
150 Spear Street
San Francisco, CA 94105

with a copy to the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the review process, call John Keene at 916/445-0613.

Sincerely,

David C. Nunenkamp
Chief
Office of Permit Assistance

Attachments

cc: John A. Davis

SCH# 89080705

'S': Sent by Lead 'X': Sent by SCH

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- ☒ **Victorville Branch Office**
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☐ **APCD/AQMD:**_____

A-2

August 2, 1989

NOTICE OF PREPARATION

To:

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

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT ON INCREASED GROUNDWATER PUMPING IN THE OWENS VALLEY PURSUANT TO A GROUNDWATER MANAGEMENT PLAN

An environmental impact report will be prepared by EIP Associates for the project described in the attached materials. The lead agency will be the City of Los Angeles (City). Inyo County (County) may be a responsible agency.

The County and City have been involved in negotiations on development of a long-term groundwater management plan for the Owens Valley. On July 24, 1989, negotiating teams from the County and the City reached agreement on the long-term management plan. Following an opportunity for public input, the Inyo County Board of Supervisors and the City of Los Angeles Department's Board of Water and Power Commissioners will take action to either approve or not approve the agreement.

If the County and the City both approve the agreement, the parties will jointly participate in the preparation of the EIR and both the County and the City will have equal input and access to the consultant (EIP Associates) preparing the EIR. The final EIR must be approved by both the County Board of Supervisors and the City's Department of Water and Power Board of Commissioners. If the County and the City do not approve the agreement, then the City will proceed independently in the preparation of the EIR. In either case, the project description is expected to be essentially the same.

The Notice of Preparation is being released to individuals and agencies at this time in order to meet the court imposed schedule for completion of the EIR by June 30, 1990. We need to know the views of agencies as to the scope and content of the environmental information which is germane to the agency's statutory responsibilities in connection with the proposed project.

The project description, location, and the probable environmental effects are contained in the attached materials.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to John A. Davis, P.E. at the address shown above. We will need the name of a contact person in your agency.

Project Title: Increased Pumping of the Owens Valley Groundwater Basin Pursuant to a Groundwater Management Plan

Date August 2, 1989 Signature John A. Davis

Title Senior Vice President

Telephone 415-546-0600

NOTICE OF PREPARATION
ENVIRONMENTAL IMPACT REPORT (EIR)
INCREASED PUMPING OF THE
OWENS VALLEY GROUNDWATER BASIN
PURSUANT TO A GROUNDWATER MANAGEMENT PLAN

Background

In 1913, the City of Los Angeles (City) completed the first aqueduct to export water from the Owens Valley to Los Angeles. When a second aqueduct was completed in 1970, a portion of the water for the aqueduct was to be obtained by increased groundwater pumping in the Owens Valley. In 1972, under the provisions of the California Environmental Quality Act (CEQA), County of Inyo (County) filed a lawsuit to require the preparation of an EIR on this increased pumping.

Litigation on this issue and other issues continued until 1984, when the County and City entered into a five-year agreement. This agreement suspended litigation while the parties cooperatively managed groundwater pumping, implemented enhancement/mitigation measures, conducted environmental studies, and worked toward the development of a long-term groundwater management plan. On July 24, 1989, negotiating teams from the County and the City recommended the approval of a long-term plan that incorporates the results of these studies.

This EIR is being prepared by the consulting firm of EIP Associates for the City, acting as lead agency. It will become a jointly prepared EIR, with the County acting as responsible agency, if the City and County approve the long-term groundwater management plan (Plan). The Plan provides procedures to be utilized by the City and County to avoid or mitigate the potential impacts of increased pumping. The Plan incorporates the results from studies undertaken by the USGS, and by the City and County since 1984 as part of the interim agreement. These studies evaluated, among other things, the impacts of groundwater pumping on vegetation. The study results provide tools for management of groundwater pumping.

The EIR is being prepared in compliance with the orders of the Court of Appeal, Third Appellate District, State of California, issued in the 1972 civil suit filed against the City by the County (No. 13886) asking the court to enforce the provisions of the California Environmental Quality Act (CEQA).

Project Description

The subject of the EIR is a plan for managing the groundwater basin and increasing the average rate of groundwater extraction and use (both for export and in-valley use) above a baseline rate reasonably representing the average rate of groundwater extraction and use (both for

export and in-valley use) preceding the Second Los Angeles Aqueduct's availability for use. As such, the no-project alternative will discuss conditions of groundwater basin management which existed before 1970 and the project will address both planned and implemented changes in management practices which have occurred since 1970, or which will occur as a result of the long-term agreement between the City and County.

The amount of the increased pumping will be variable depending upon its effect on the Owens Valley environment in any designated management area. Its effect on the environment, as represented by the condition of the plant communities, will be measured and monitored by the parties to determine if certain triggering conditions, such as soil moisture, fall below prescribed levels. In the event those conditions occur for any particular management area, a range of prescribed actions will be undertaken by the parties to reverse the trend and to restore the soil moisture available to the vegetation. Such actions include such things as the cessation of pumping in the management area, revegetation, or the application of surface irrigation. These activities may also be undertaken as a result of the monitoring, but in advance of the occurrence of the soil moisture decline. The amount of the pumping projected for any given runoff year (April 1 - March 30) will be determined by the City in consultation with the County and will be developed based upon a variety of factors including: the projected surface water runoff for the coming year; the existing soil moisture available to vegetation; the condition of the vegetation; the needs for water in Los Angeles; and the avoidance of groundwater mining.

Elements of the preferred project include:

- Protection of the environment through a plan of groundwater management that monitors soil moisture, water levels, and vegetation conditions in determining a pumping program.
- An increase in groundwater extractions compared to the period before 1970.
- Avoidance of groundwater mining.
- A firm irrigation supply for designated agricultural lands in the Owens Valley.
- Construction of new wells to allow rotational pumping and increased operational flexibility and for enhancement/mitigation projects implemented as a part of the current interim Inyo/Los Angeles agreement.
- Implementation of several enhancement/mitigation projects in the Owens Valley, which created wildlife and waterfowl habitat areas and rewatered the Lower Owens River.

- Facilities to enhance groundwater recharge to increase storage of surplus water during years of above normal precipitation.

Implementation of this project will increase groundwater pumping from the basin, as compared to pre-1970 long-term pumping averages, while protecting the environment. The increased groundwater pumping will also be used to level-out fluctuations in the availability of surface water due to the variability in precipitation. The net result will be an increase in water supply for export and a firm supply for designated agricultural lands, enhancement/mitigation projects and other Owens Valley uses.

Project Location

The project area is located in Inyo County, primarily in the Owens Valley, stretching from the Inyo County line on the north to Haiwee Reservoir on the south. The Owens Valley, in east-central California, is approximately 120 miles in length and from 5 to 30 miles in width. The valley floor elevation is approximately 4,000 feet and is flanked to the west and east by the Sierra Nevada and White and Inyo mountains ranging in height from 11,000 to 14,000 feet (see attached map).

There are four towns and several smaller communities in the study area. These are: Bishop, Big Pine, Independence, and Lone Pine (see attached map). Total population in Inyo County is approximately 17,895.

Potential Environmental Impacts and Mitigation

The court's order requires the EIR to use pre-Second Los Angeles Aqueduct conditions for water supply and use and for the no-project alternative as noted herein. Accordingly, any environmental impacts will be evaluated and discussed in the same context (that is from prior to 1970 onwards), even though some may have already occurred before this EIR is written.

Potential effects on the environment associated with the project include:

- Fluctuating water levels in well field areas.
- Reduced flows from springs and flowing wells.
- A reduction in average total irrigated acreage compared to the period before 1970.
- Short-term impacts associated with construction of new wells, recharge basins, and other facilities (noise, traffic, dust, etc.).
- Reduction in the percentage of vegetation live cover in certain areas of the Owens Valley.

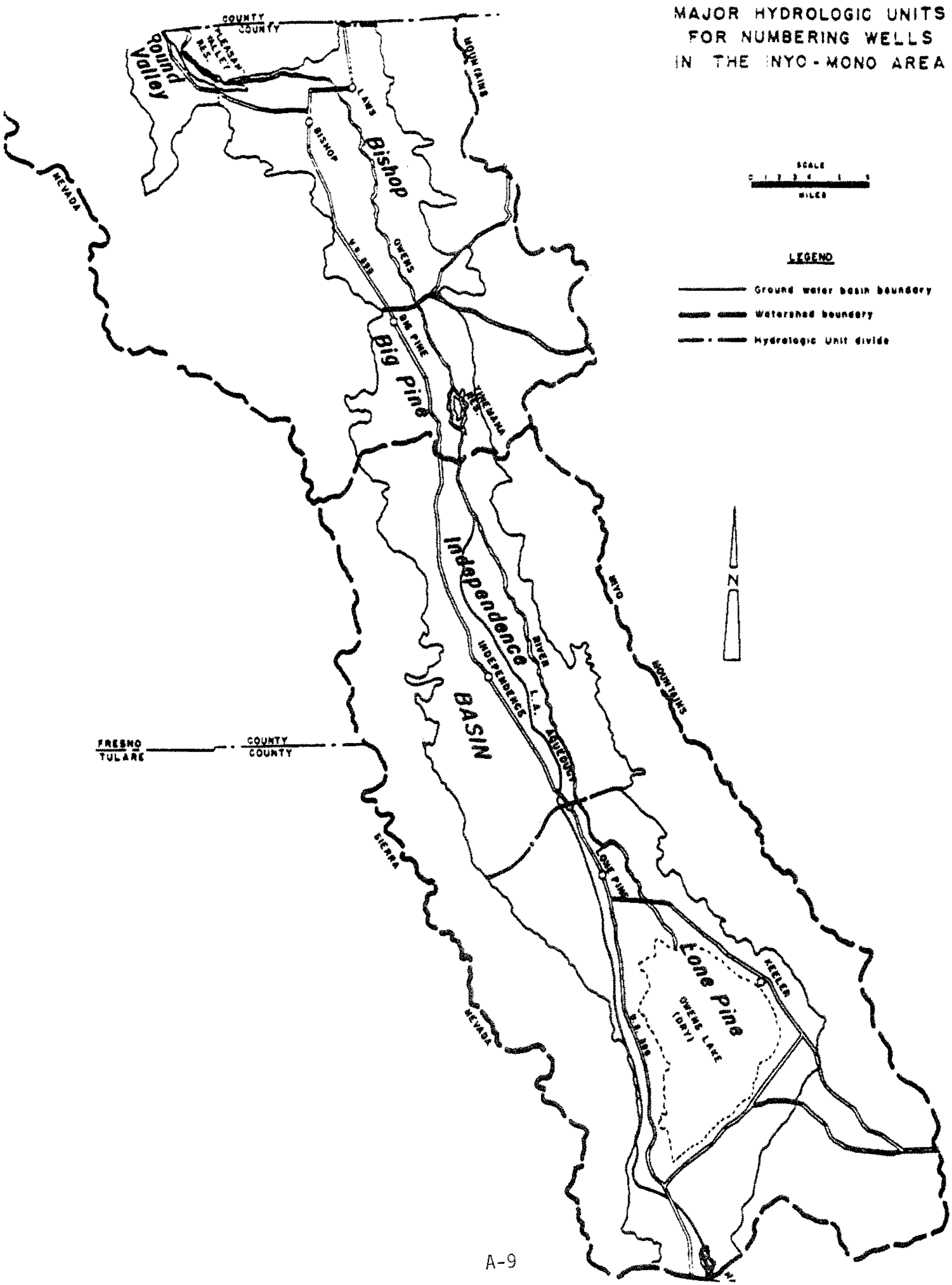
- o Changes in environmental conditions that may have occurred since 1970.

- o Improved or enhanced conditions associated with rewatering the Lower Owens River, implementation of wildlife and waterfowl habitats, and other enhancement/mitigation projects in the Owens Valley.

The EIR will address potential environmental impacts in the following areas: groundwater levels; water quality; vegetation; wildlife; air quality; energy; land use; subsidence; construction impacts; and cumulative impacts. Each of these areas will be addressed in the EIR together with planned and/or the potential for mitigation measures.

The above impacts and other identified impacts will be addressed in the EIR together with new or existing mitigation measures implemented since 1970.

It is expected that there would be no adverse effects on historical and cultural resources; population, employment and housing; transportation; public health and safety; and community services.


MAJOR HYDROLOGIC UNITS
FOR NUMBERING WELLS
IN THE INYO-MONO AREA
SCALE
MILES
LEGEND
Ground water basin boundary
Watershed boundary
Hydrologic Unit divide
COUNTY
COUNTY
Round Valley
PLEASANT VALLEY RES.
MOUNTAINS
LAWS
BISHOP
Bishop
NEVADA
OWENS
U.S. 395
BIG PINE
Big Pine
TINEMAHA RES.
Independence
INDEPENDENCE
RIVER
L.A.
AQUEDUCT
BASIN
INYO
MOUNTAINS
FRESNO
TULARE
COUNTY
COUNTY
SIERRA
NEVADA
LONE PINE
Lone Pine
KEELER
OWENS LAKE (DRY)
U.S. 395

B. STIPULATION AND ORDER FOR JUDGEMENT

SUPERIOR COURT OF THE STATE 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

Gregory L. James, County Counsel
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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 GREGORY L.

JAMES, County Counsel; and ANTONIO ROSSMANN, Special Counsel; as follows:

SECTION I

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 Angeles.

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.

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 ordi nance;

- temporarily suspend litigation on Inyo County's environmental suit and Court-imposed pumping restrictions by substituting jointly developed annual pumping programs;
- lease Owens Valley town water systems to Inyo Coun ty, which would result in a reduction in water rates;
- conduct cooperative studies, together with impartial third parties, including the United States Geological Survey (USGS);
- implement certain enhancement/mitigation projects;
- provide financial assistance to Inyo County from Los Angeles to cover costs of various studies and the County's water-related activities;
- negotiate a long term groundwater management plan;
- 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.

In December 1984, the Court of Appeal modified the Writ of 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 not imply that a joint long term groundwater management plan would be a new project. The project was would remain as it was -- a program 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 EIR were to be presented in conjunction with a joint long term groundwater management plan. In January 1985, this Court approved the interim agreement.

In May 1988, as a result of a joint application by Inyo County and the Department, a sixteen (16) month extension 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 from the date of the release of the draft EIR. In July 1990, the Court also granted this extension.

Since 1984, certain studies budgeted at approximately five million dollars ($5,000,000.00) have been undertaken by Inyo County, Los Angeles, and USGS to learn more about the relationship between groundwater pumping and its 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 reports. These USGS reports, together with other cooperative 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 Order. An EIR, as required of Los Angeles by the Court of Appeals 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 lease one (1) member of the Los Angeles City Council, the Administrative Officer of the City of Los Angeles, two (2) members of the Board of Water and Power Commissioners, and three (3) staff members. The County representatives on the Standing Committee shall be at least one (1) member of the Inyo County Board of Supervisors, two (2) Inyo County Water Commissioners, and three (3) staff members. The Technical Group shall be comprised of not more than five (5) representatives selected by the County and five (5) by the Department.

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

A. Each well field area has been included in a designated management area. The boundaries of each management area have been established so as to contain all vegetation that could be impacted as a result of groundwater pumping from the well field area during "worst case" conditions (multiple dry years along with heavy pumping). Each management area contains several monitoring sites. Each

Department well in a management area is linked to a 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 management area along with appropriate monitoring requirements. The appropriate vegetation classifications for management shall be established by the Technical Group within the new area and each new management area shall be managed in accordance with these goals and principles.

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

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 149,800 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 as yellow on the management maps and includes approximately 10,900 acres.

C. Type C Classification. This classification is comprised of grasslands/meadow 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 water spreading, etc. This classification is shown as green on the management maps and includes approximately 42,000 acres.

D. Type D Classification. This classification is comprised of riparian/marshland vegetation communities with evapo-

transpiration 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 5,600 acres.

E. Type E Classification. This classification is comprised 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 18,800 acres.

III. MANAGEMENT STRATEGY

A. OVERALL GOAL

The overall goal of managing the water resources within Inyo County is to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County.

B. GROUNDWATER MINING

The goal is to avoid long term groundwater mining from aquifers of Inyo County. This goal will be met by managing annual groundwater pumping so that the total pumping from any well field area over a 20 year period (the then current year plus the 19 previous years)

does not exceed the total recharge to the same well field area over the same 20 year period. The Technical Group may increase the annual pumping from a well field area above this amount if a recharge program for that area is implemented or for other relevant reasons that are consistent with these goals and principles. The average annual recharge to each well field area over the 20 year period shall be determined by the Technical Group using 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 Environmental 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:

1. 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,
3. 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.

(Guidelines for Implementation of the California Environmental Quality Act - Section 15370)

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.

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

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 Technical Group. The type of monitoring that will be conducted at each site and at each monitoring well will vary as determined necessary by the Technical Group. Monitoring could include, but is not limited to, measurement of retained soil water, water levels in deep and shallow wells, analysis of vegetation, and the use of photographic monitoring. All monitoring, analysis and interpretation 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

The 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 wells, the type of monitoring to be conducted at each site, the standardized procedures for analysis and interpretation of monitoring results, including the determination of available soil water and the amount of soil water required by vegetation, are set forth in a technical document called a "Green Book". The "Green Book" is attached as a technical appendix to this 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 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.

G. 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. Any such significant adverse effects shall be promptly mitigated by the Department. The determination of significant adverse effects shall be made by the Technical Group as provided in subparagraph IV(B) below. Although this provision is intended to protect owners of wells who are not parties to this Stipulation and Order from impacts attributable 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 exhausted prior to the exercise of any legal right by such a non-party.

H. INDIAN LANDS

These goals and principles and the other provisions of the final long term agreement 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

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 the final long term agreement 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

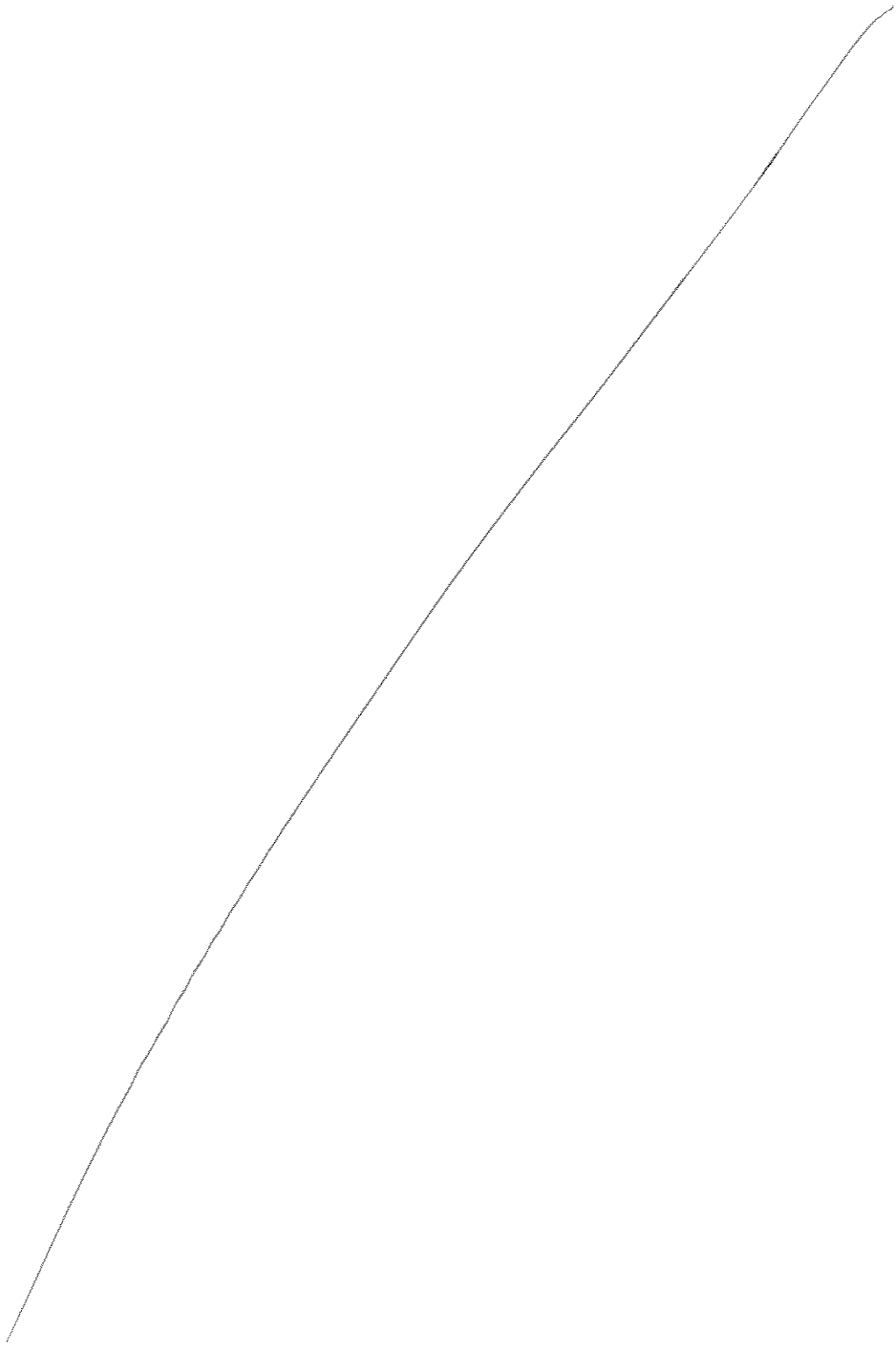
Type A Vegetation Classification

This vegetation with a calculated ET rate approximately equal to precipitation, should not be 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 now 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. 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 is 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 in accordance with its practices from 1970 (past practices have included taking canals out of service for maintenance and for operational purposes). However, any permanent change in canal operations, compared to past practices, shall be subject to prior Standing Committee approval. The Department will continue to determine and implement maintenance activities to control aquatic weeds and ditch bank vegetation in order to maintain canals in 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 from vegetation conditions that which existed on such lands during the 1981-82 runoff year. Significant decreases and changes in vegetation will be determined as set forth in the management goals for the Type B, C, and D vegetation; however, the conversion of cultivated land

by the Department or its lessee to other irrigated uses shall not be considered a significant decrease or change. Another 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 amount sufficient so that the water related uses of such lands that were made during the 1981-82 runoff year can continue to be made. The Department shall continue to provide water to Los Angeles-owned lands in the Olancha/Cartago area such that the lands that have received 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 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 implemented if such a program is approved by the County Board of Supervisors and the Department, acting through the Standing Committee.

B. 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 primarily by a comparison of the area surface water management practices, 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 area the change, decrease, or effect has affected;
- 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

By the first of each month the Technical Group shall project the "water balance" for each monitoring site. These monthly projections will be made unless the Technical Group determines that monthly projections are unnecessary because of high soil water conditions. In making these water balance projections, the Technical Group shall compare the estimated amount of soil moisture available to vegetation with the estimated required water needs of the vegetation for the growing season (or appropriate portion thereof) at each monitoring site. These projections shall be made in accordance with 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. The growing season used when water balance projections are made between September 1st through December 31st shall be the growing season during the following calendar year. One-half of the average annual precipitation at the monitoring site between October 1st and September 30th shall be included in the October 1st water balance projection. This will be reduced to forty percent of the annual average precipitation if the average of the actual

runoff for the previous runoff year and the forecasted runoff for the then current runoff year is less than 70 percent of average, and to thirty percent of the average 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 on wells in an area, the Department shall leave such wells off until the soil water in the area of the monitoring site has recovered to the estimated water needs of the vegetation as of the time the wells were turned off. Once the soil water in the area of the monitoring site has recovered to the level where the amount available to vegetation is equal to the estimated water needs of the vegetation as of the time that the wells were turned off (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 evaluation of the existing vegetation conditions and other relevant factors, may revise the required level of soil 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 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.

D. 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 for 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 any subsequent modifications to it, shall be consistent with these goals and principles.

1. 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 10 days of receipt of the plan.

3. The Department shall meet with the County's Technical Group representatives within 10 days of the receipt of the County's comments, and 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 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 opportuni-

ty 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

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 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

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 groundwater 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.

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

the Department will improve the Independence town reservoir if needed to provide a facility with an expected service life of at least fifteen (15) years with routine maintenance and that meets all Department of Health Services requirements. Further, the Department, at its option, shall either upgrade the reservoir as needed to meet seismic requirements as agreed upon by the County Board of Supervisors and the Department, or shall fully repair any damage to the reservoir caused by earthquake during a fifteen (15) year period following the transfer of the water system. The Lone Pine reservoir shall be replaced by the Department with a new reservoir with a five hundred thousand (500,000) gallon capacity. (Once a replacement well and the new reservoir are in service, groundwater shall not longer be exported via the Los 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 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.

an independent engineering firm inspect each of the systems for compliance with all 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 seismic events. The costs of this inspection shall be funded 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 such regulations.

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.

Also during the initial five (5) year lease period,

the Department will improve the Independence town reservoir if needed to provide a facility with an expected service life of at least fifteen (15) years with routine maintenance and that meets all Department of Health Services requirements. Further, the Department, at its option, shall either upgrade the reservoir as needed to meet seismic requirements as agreed upon by the County Board of Supervisors and the Department, or shall fully repair any damage to the reservoir caused by earthquake during a fifteen (15) year period following the transfer of the water system. The Lone Pine reservoir shall be replaced by the Department with a new reservoir with a five hundred thousand (500,000) gallon capacity. (Once a replacement well and the new reservoir are in service, groundwater shall not longer be exported via the Los 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 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.

It is recognized that Los Angeles has leased the 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 event 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 will be provided to the Big Pine water system as are available to the three other Owens Valley water systems. This includes providing untreated water to the 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 January 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 the final long term agreement unless otherwise agreed by the County Board of Supervisors and the Department.

Prior to implementation, the project will be the subject of a separate "CEQA" review from the EIR which describes this Stipulation and Order.

The project plan will include the construction of a pumpback station from the river near Keeler Bridge to the Los Angeles aqueduct. The pumpback system will be capable of pumping up to fifty cubic feet per second (50 cfs) from the river to the aqueduct. Due to seasonal fluctuation in the flow of the river, the average annual pumping in any year will not exceed approximately thirty-five cubic feet per second (35cfs). The plan will also provide that water 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 the existing project will be continued, and for a water release from the pumpback station to supply the southern end of the river and the Delta. It is recognized that the release to the southern end of the river and the Delta may be constrained by 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.
- 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 maintain the pumpback system. The total cost of the construction of the pumpback system, new release structures, channel modifications, and other necessary work for initial operation of the project is estimated by the Department to be approximately seven and one-half million dollars ($7,500,000.00) million. The Department shall fund the initial construction costs of the project and the State of California, the County or other sources shall contribute fifty percent of actual costs up to three and three-quarters million dollars ($3,750,000.00) to the Department. The Department shall pay for the annual cost of operating the pumpback system less any funds received from other non-County sources. Once the project has been con structed 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 Haiwee 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 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 on the same control priorities as described above. The funding of the initial three (3) year program shall be three hundred fifty thousand dollars ($350,000.00) for the first year and two hundred thousand dollars ($200,000) 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 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 amount of each payment shall be the previous year's payment adjusted upward or downward each year in accordance with the Los Angeles - Anaheim - Long Beach All Urban Consumers Price Index or its successor. The maximum adjustment shall not exceed five (5) percent in any year. The annual payment shall be placed in trust by the County and will be used only for the purposes of salt cedar control. If, at anytime, one hundred fifty thousand dollars ($150,000) or more is accumulated in the trust, the Department shall not be required to make an additional payment until such time as the funds in the trust are less than fifty thousand dollars ($50,000.00) on June 30th of any year. The annual funding for salt cedar would continue unless the County Board of Supervisors and the Department, through the Standing Committee, agree that the salt cedar control program is to be reduced in scale or terminated. It is recognized that even with an initial and an annual control effort, salt 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.

Among the first facilities considered for rehabilitation will be the Pleasant Valley Campground, the Baker Creek Campground, Dehy Park, and Diaz Lake. Among the first new facilities and programs considered for development will be certain campgrounds along the Owens River from Pleasant Valley Reservoir to the Owens River Delta, and a recreational use and management plan for that reach of the Owens River. The construction of new 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 ($2,000,000.00) to the County for the above purposes. The amount of funds provided in any year shall be based upon the work to be undertaken on such activities by the County during that year. The funds provided may only be

used by the County for the purposes described in the 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 payment shall be made within sixty (60) days of entry of this Stipulation and Order. If the entry of this 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 Order occurs between August 1st and June 30th, the payment shall be the sum of one hundred thousand dollars ($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 or June, the payment would be five twelfths of one hundred thousand dollars (5/12 of $100,000,00), or one twelfth of one hundred thousand dollars (1/12 of $100,000), respectively.

After the initial payment, an annual payment shall be made by July 10th of each year, and the amount of 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 the annual payment shall be the previous year's payment

adjusted upward or downward each year in accordance with the Los Angeles - Anaheim - Long Beach All Urban Consumers Price Index or its successor. The maximum adjustment shall not exceed five (5) percent in any year. The annual funding shall be placed in trust by the County and shall be used only for the purposes of operation and maintenance of existing and new parks, recreational facilities and programs. If at anytime three hundred thousand dollars ($300,000.00) or more were to be accumulated 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 County Board of Supervisors and the Department agree that the operation and maintenance program is to be reduced in scale or terminated.

C. Water and Environmental Activities

The Department shall assist the County in funding water and environmentally related activities by making an annual payment to the County. The first payment shall be made within sixty (60) days of entry of this Stipulation and Order. If entry of this Stipulation and Order occurs during the month of July, the payment would be seven hundred fifty thousand dollars ($750,000.00). If entry of this Stipulation and Order occurs between August 1st and June 30th, the payment shall be the sum of seven hundred fifty thousand dollars

($750,000.00) prorated as set forth in paragraph B above.

After the initial payment, an annual payment shall be made by July 10th of each year, and the amount of the payment for the first full fiscal year following entry of this Stipulation and Order shall be seven hundred fifty thousand dollars ($750,000.00). Each year thereafter, the amount of the annual payment shall be the previous year's payment adjusted upward or downward each year in accordance with the Los Angeles - Anaheim - Riverside All Urban Consumers Price Index or its successor. The maximum adjustment shall not exceed five (5) percent in any year. Annual funding shall be placed in trust by the County and shall be used only for purposes of operation and maintenance of water and environmentally related activities. If at anytime one million five hundred thousand dollars ($1,500,000.00) or more is accumulated in the trust, the Department shall not be required to make an additional annual payment until the funds in the trust are less than seven hundred fifty thousand dollars ($750,000.00) as of June 30th of any year. This annual funding shall continue unless the County Board of Supervisors and the Department agree that the program is to be reduced in scale or terminated.

(Until the date of entry of this Stipulation and Order, or until the date of a decision to disapprove this Stipulation and Order, whichever occurs sooner, the parties have agreed to determine the appropriate July-June fiscal year funding to be provided by the Depart-

ment to the County for its water and environmentally related activities and for cooperative studies.)

D. General Financial Assistance to the County

To assist the County in providing services to its citizens, the Department shall make an annual contribution to the County. The first contribution shall be made within sixty (60) days of entry of this Stipulation and Order. If entry of this Stipulation and Order occurs during the month of July, the contribution shall be one million dollars ($1,000,000.00). If entry of this Stipulation and Order occurs between August 1st and June 30th, the contribution shall be the sum of one million dollars ($1,000,000.00) prorated as set forth in paragraph B above.

After the initial contribution, an annual contribution payment shall be made by July 10th of each year, and the amount of the contribution payment for the first full fiscal year following entry of this Stipulation and Order shall be one million dollars ($1,000,000.00). Each year thereafter, the amount of the annual contribution shall be the previous year's contribution adjusted annually in accordance with the formula for assessment of Los Angeles-owned property as set forth in present Article XIII, Section 11 of the California Constitution.

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, a portion of 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.

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 Associa-

tion 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 for 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 two year period, unless otherwise agreed by the County Board of Supervisors and the Department, through the Standing Committee, the funds shall be used for a project other than a ditch system. If less than $100,000 is expended on the ditch system, or if no ditch system is constructed, the unexpended difference may be used by the Big Pine entity or organization on other projects in Big Pine that have been approved in advance by the Department and the County Board of Supervisors acting through the Standing Committee.

G. Park and Environmental Assistance to City of Bishop

To financially assist the City of Bishop in the operation and maintenance of its park and other environmentally related activities, the Department shall make an 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 this Stipulation and Order occurs in the month of July, the payment will be one hundred twenty-five thousand dollars ($125,000.00). If entry of this Stipulation and Order occurs between August 1st and June 30th, the payment shall be the sum of $125,000 prorated as set forth in paragraph B above. Thereafter, the annual payment shall be made by July 10th of each year, and the amount of each payment shall be the previous year's payment adjusted upward or downward each year in accordance with.opthe Los Angeles - Anaheim - Long Beach All Urban Consumers Price Index or its successor. The maximum adjustment will not exceed five (5) percent in any year. 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. This payment shall come from the County's transactions and use tax.

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, has requested 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 as 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 of the Los Angeles City Charter for the sale of real property. To ensure that any sales of the seventy-five (75) acres furthers the County efforts for the orderly development of the towns within Inyo County, the parties further agree to jointly confer on the location of, and the schedule for, the sale of each parcel pursuant to 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 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. City of Bishop

In addition to the sales described above, Los 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. The location of each property and the schedule for sale must be agreed upon by the City of Bishop and Los Angeles. Each parcel sold must be located within general areas designated by boundaries on the attached map. Authorization to sell up to twenty-six (26) acres of surplus properties within designated release areas 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 are authorized to act on behalf of the City in approving and conducting such sales. However, the terms of each sale will be subject to approval by the Los Angeles City Council. Each sale is subject to a CEQA review. Nothing in these concepts precludes the City of Los Angeles 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.

ADDITIONAL SALES

In addition to the above described sales, upon request of the County Board of Supervisors or the Bishop City Council, Los Angeles shall negotiate in good faith for the sale at public auction of additional surplus Los Angeles-owned land in or near valley towns for specific identified needs. Any such sales shall occur 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. It 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 Charter. Decisions on this matter by the Department's Board of Commissioners and the Los Angeles City Council shall not be subject to dispute resolution.

C. Lands for Public Purposes

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

D. Withdrawn Lands

Because of the above provisions for land releases, Inyo County will support passage of withdrawn land 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 that the proposed legislation will be modified to allow lands in Rose 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.

XVIII. 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, and other property 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 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 normal Department ranch leasing practices.

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

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 of 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

Los Angeles and the County acknowledge that there are certain risks in maintaining current and projected water supplies to Los Angeles. These foreseeable risks are a possible reduction in diversions by Los Angeles from the Mono Basin, contamination of the San Fernando Valley Groundwater Basin, uncertainty in the amount of water exports from the Sacramento/San Joaquin Delta, a reduction in 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 County Board of Supervisors, the Department, and the City of Los Angeles.

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 of improving the monitoring and evaluation activities, the Department and the 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 the turning off of wells (Section V.C), including a substitution of an entirely new "triggering mechanism." A disagreement over such a modification shall be subject to dispute resolution.

XXVI. DISPUTE RESOLUTION

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

1. Whether a decrease or change in or a potential significant effect on the environment vegetation is attributable to groundwater pumping, or a change in surface water management practices.

2. 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.

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 the agreement.

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, the Green Book, or the EIR.

B. Disputes between the parties arising out of this Stipulation and Order, the Green Book or the EIR shall be resolved as follows:

1. Technical Group

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. If the Technical Group agrees on a resolution, that agreement shall be submitted to the Standing Committee for consideration and implementation if concurred with by the Standing Committee. In the event that the Technical Group is unable to resolve a matter, or is unable to make a unanimous recommendation to

the Standing Committee, the Technical Group shall make a written report to the Standing committee explaining the areas of agreement, if any, the subject or subjects of disagreement, and each party's argument in favor of its position along with supporting data and background. This report shall be made within seven (7) calendar days after the Technical Group meeting, unless the Technical Group by unanimous vote, agrees to a longer time period.

2. Standing Committee

Within fourteen (14) calendar days of the receipt of such a written report of disagreement from the Technical Group, the Standing Committee shall convene concerning the subject of the report. Additionally, within fourteen (14) days of receipt 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.

C. Mediation/Temporary Arbitration.

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 con-

ducted 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 their own costs and one-half of the costs of the mediation. If, by the forty-fifth (45th) day after a party has invoked mediation, there is no mediated resolution, the mediators shall present written findings to the Standing Committee. These findings shall be submitted to the Standing Committee not later than the sixtieth (60th) day after mediation was invoked by a party. Unless otherwise agreed by the Standing Committee, the County and the Department shall immediately implement and follow the findings of the mediators. Any recommendation or 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

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 Court Case No. 12908, by filing with the Judge, and serving upon the other party, a memorandum which sets forth the disagreement, the party's contentions, its

argument in favor of its position, and any supporting evidence and points and authorities. The memorandum shall be filed and served within fifteen (15) calendar days after the issuance of written findings by the mediators unless both parties agree in writing to a longer time period. The other party may file a responsive memorandum that sets forth its view of the disagreement, its contentions, its arguments in favor of its position, and any supporting evidence and points and authorities. Such a memorandum shall be filed and served upon the other party within fifteen (15) days of the service of the initiating papers.

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

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.

XXVIII. 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).

XXIX. Inyo Superior Court Case No. 12908

A final judgment 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 the term of this Stipulation and Order, the County, its agents, servants, officers and employees, and all other persons acting in concert with the County, are enjoined from applying, implementing, or enforcing in any manner whatsoever, the County of Inyo Owens Valley Groundwater Management Ordinance, enrolled as Chapter 7.01 of the Inyo County Code, and Inyo County Ordinance No. 395; provided however, that the Inyo County Water Department and Inyo County Water Commission may remain in existence to carry out the provisions of this Stipulation and Order. Further, during the term of this Stipulation and Order, the County will not seek any appellate review of the ruling, decision, or injunction of this Court in Inyo County Superior Court Case Number 12908.

XXX. Entry of Judgment

Judgment may be entered in accordance herewith without further notice to the parties.

XXXI. Paragraph Headings

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

XXXII. Notices

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

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Assistant General Manager - Water
Los Angeles Department of Water and Power
P.O. Box 111, Room 1455
Los Angeles, California 90051

Northern District Engineer
Los Angeles Department of Water and Power
873 North Main Street
Bishop, California 93514

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

Any notices hereunder from the City and its 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 notice in writing to the City and its Department. Notice shall be considered given either (a) when delivered to the recipient, or (b) on the date shown on the return receipt when deposited.

Dated: _____

GREGORY L. JAMES, County Counsel
ANTONIO ROSSMANN, Special Counsel

_____
GREGORY L. JAMES

Dated: _____

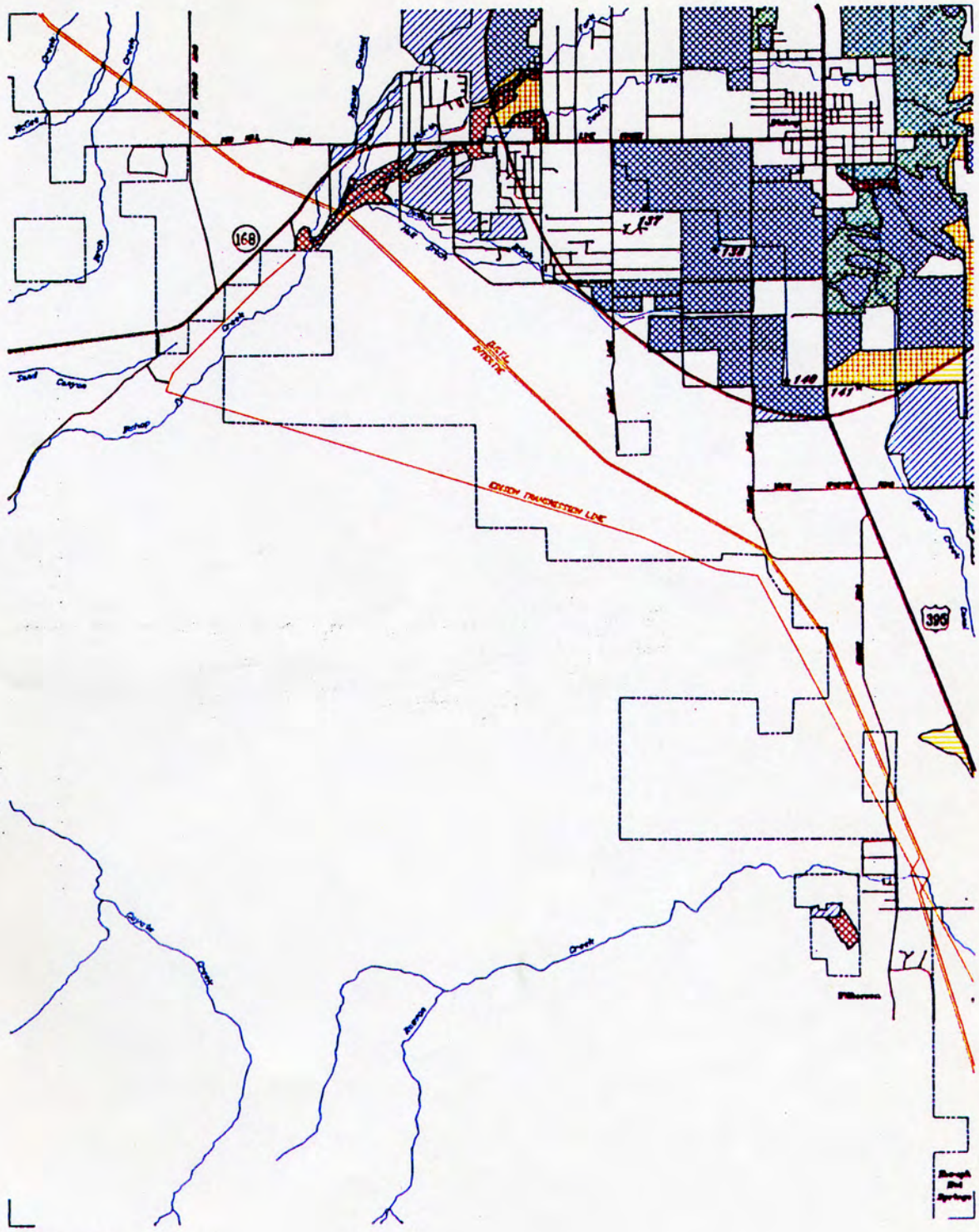
JAMES K. HAHN, City Attorney
EDWARD C. FARRELL, Chief Assistant City Attorney
EDWARD A. SCHLOTMAN, Assistant City Attorney

By _____
EDWARD A. SCHLOTMAN

ANTONIO ROSSMANN

Attorneys for Defendants
County of Inyo

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



LEGEND

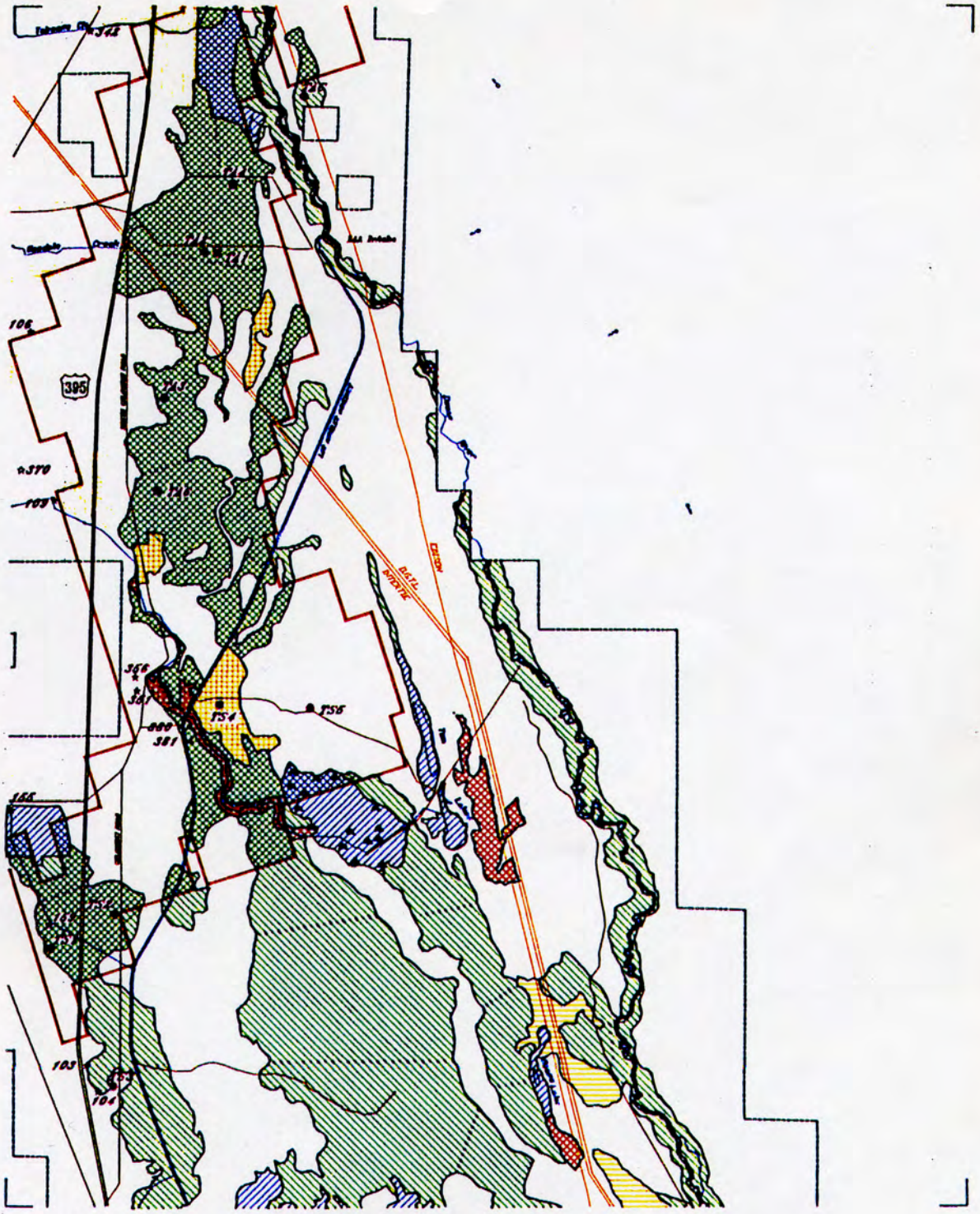
	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	2454 Ac.	8149 Ac.	10603
TYPE B CLASSIFICATION	252 Ac.	67 Ac.	319
TYPE C CLASSIFICATION	611 Ac.	12 Ac.	623
TYPE D CLASSIFICATION	63 Ac.	153 Ac.	216
TYPE E CLASSIFICATION	1960 Ac.	704 Ac.	2664
TOTALS	5340 Ac.	9085 Ac.	14425

- ★ PUMPING WELL
- ▲ R&M PUMPING WELL
- ● VEGETATION MONITOR SITE
- —— WATER TABLE CHANGE BNDRY.
- ----- LADWP PROPERTY LINE

BISHOP, CALIF.
(413-3E)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
1 of 14



LEGEND

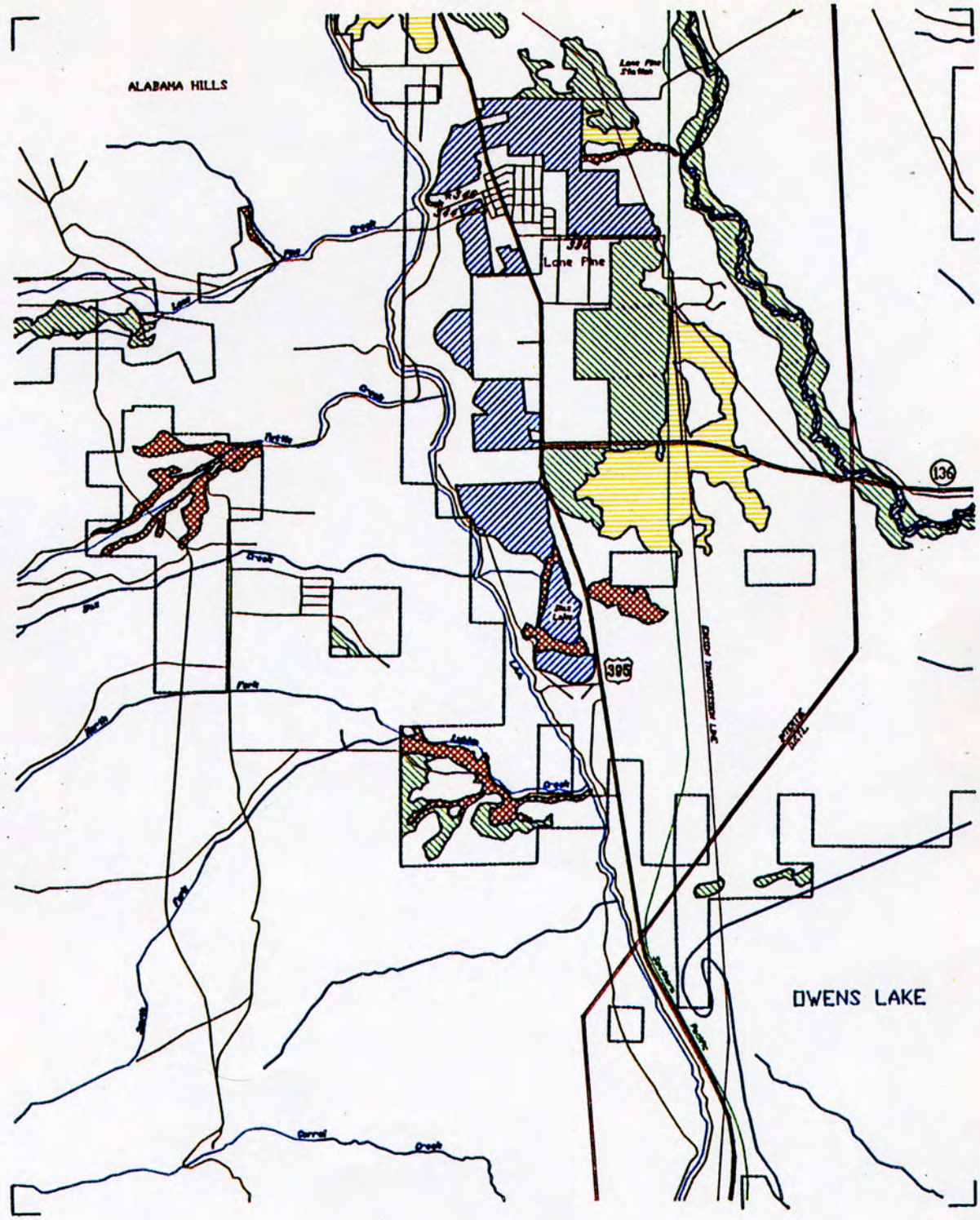
	WATER TABLE CHANGE GREATER THAN 10 FEET		WATER TABLE CHANGE LESS THAN 10 FEET		TOTAL ACREAGE
TYPE A CLASSIFICATION		3953 Ac.		9960 Ac.	13913
TYPE B CLASSIFICATION		222 Ac.		188 Ac.	410
TYPE C CLASSIFICATION		2289 Ac.		4662 Ac.	6951
TYPE D CLASSIFICATION		93 Ac.		247 Ac.	340
TYPE E CLASSIFICATION		206 Ac.		655 Ac.	861
TOTALS		6763 Ac.		15812 Ac.	22576

★ PUMPING WELL
▲ R&M PUMPING WELL
● VEGETATION MONITOR SITE
WATER TABLE CHANGE BNDRY.
LADWP PROPERTY LINE

BLACKROCK, CALIF.
(372-2E)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
2 of 14



LEGEND

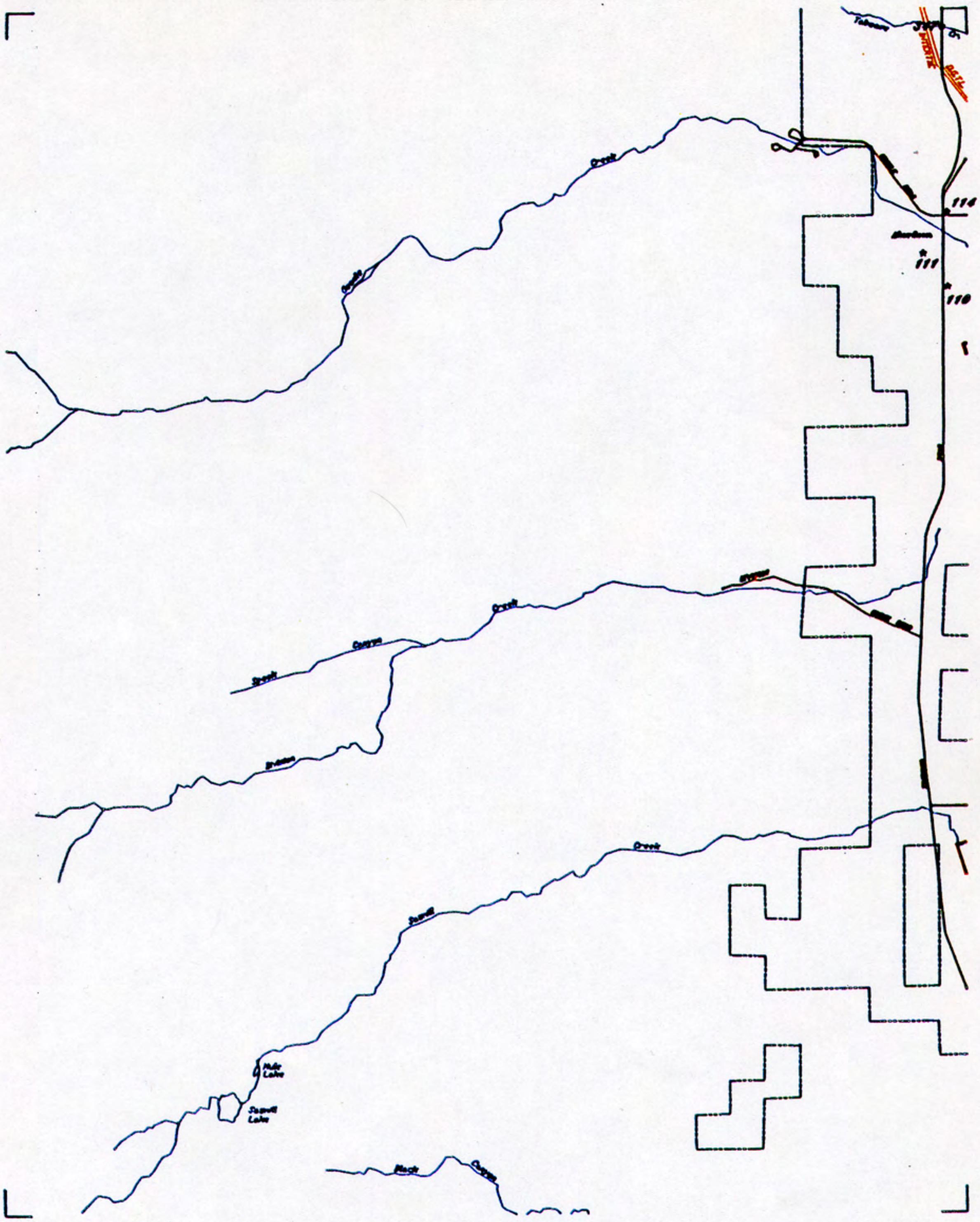
LONE PINE, CALIF.
(36I-4E)

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION		18716 Ac.	18716
TYPE B CLASSIFICATION		713 Ac.	713
TYPE C CLASSIFICATION		1638 Ac.	1638
TYPE D CLASSIFICATION		448 Ac.	448
TYPE E CLASSIFICATION		1137 Ac.	1137
TOTALS		19648 Ac.	19648

★ PUMPING WELL
▲ B&M PUMPING WELL
● VEGETATION MONITOR SITE
WATER TABLE CHANGE BNDRY.
LADWP PROPERTY LINE

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
3 of 14



LEGEND

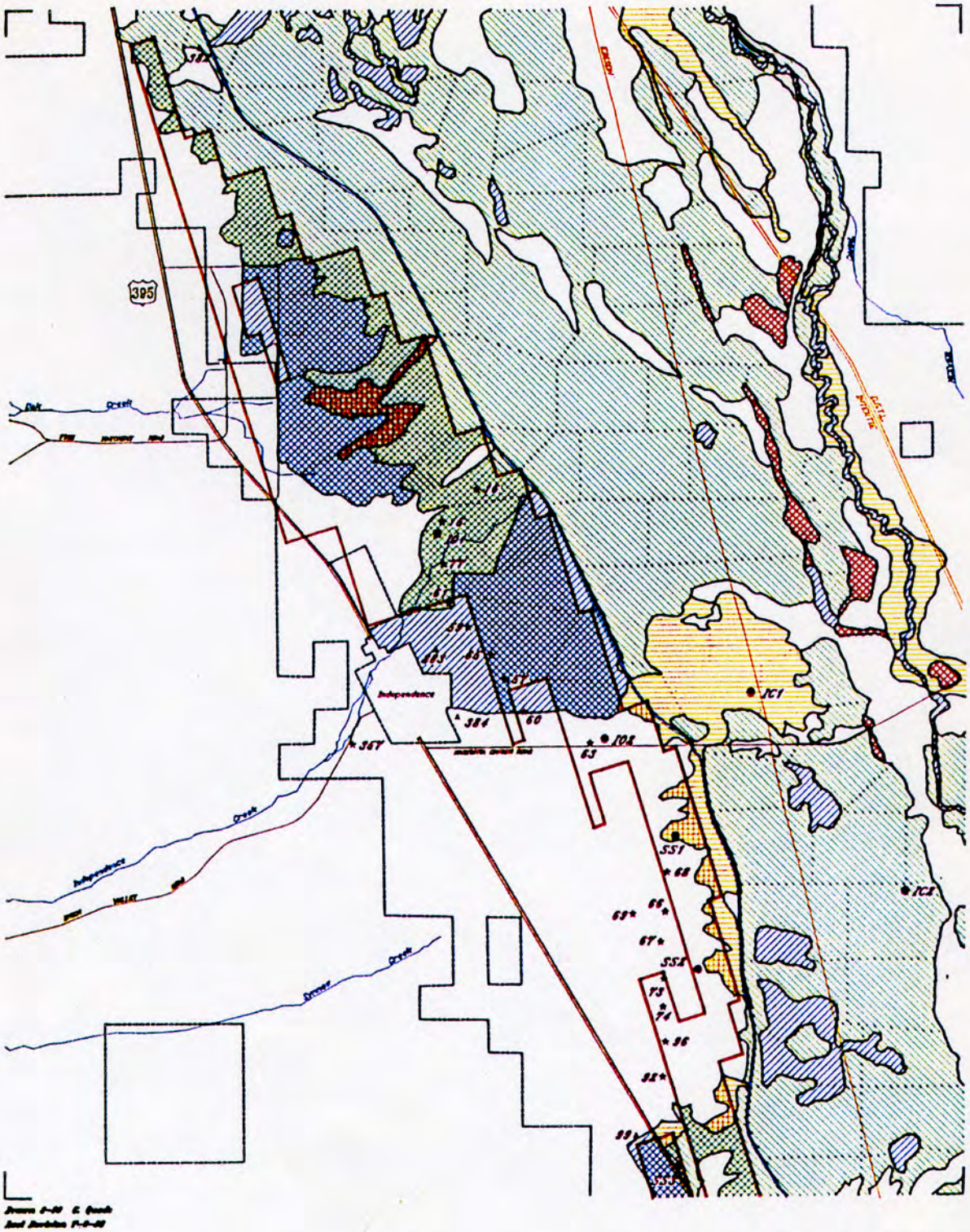
	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	11 Ac.	4506 Ac.	4517
TYPE B CLASSIFICATION			
TYPE C CLASSIFICATION			
TYPE D CLASSIFICATION			
TYPE E CLASSIFICATION			
TOTALS	11 Ac.	4506 Ac.	4517

- ★ PUMPING WELL
- ▲ E&M PUMPING WELL
- ● VEGETATION MONITOR SITE
- —— WATER TABLE CHANGE BNDRY.
- ---- LADWP PROPERTY LINE

ABERDEEN, CALIF.
(373-1E)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
4 of 14



LEGEND

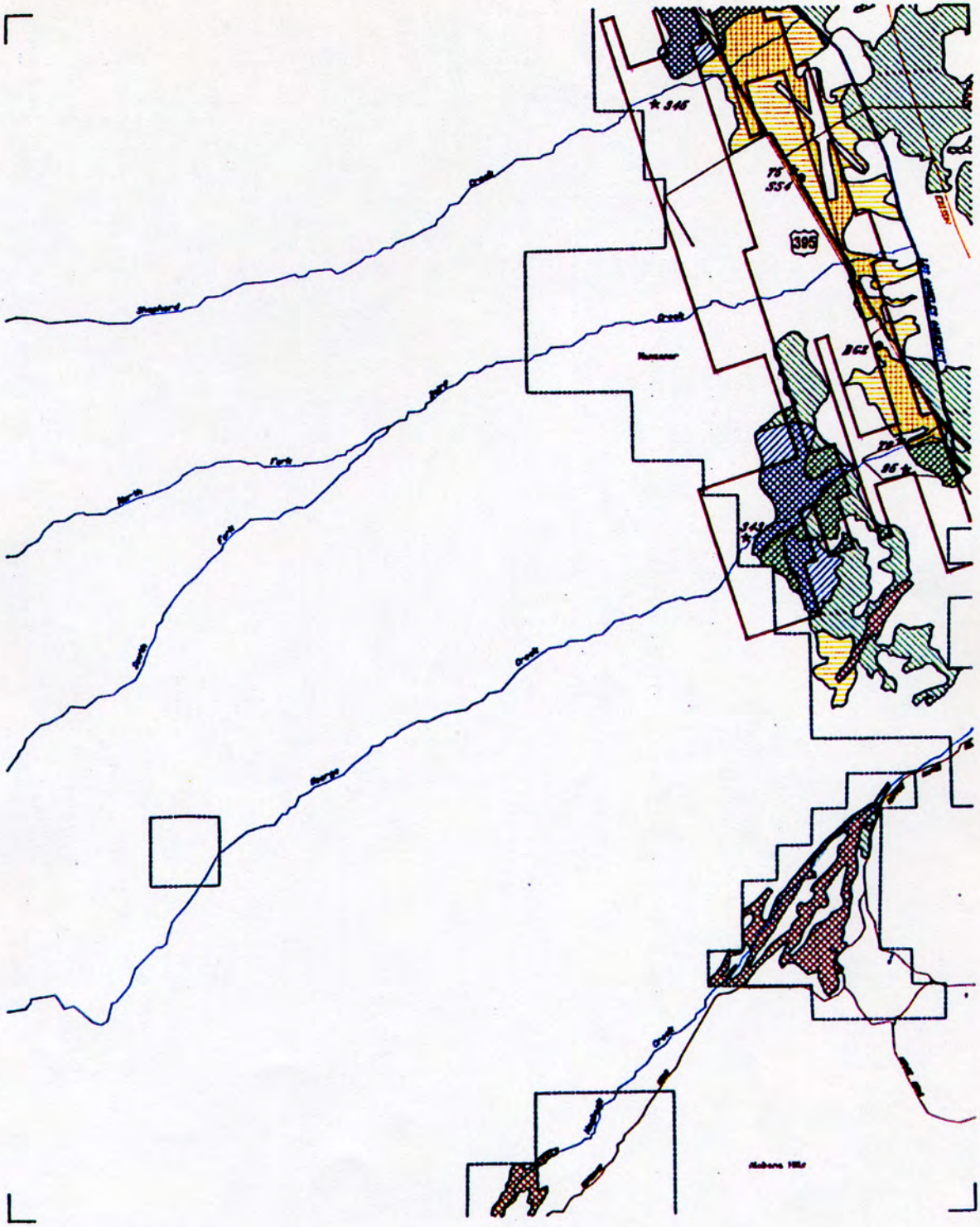
	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	1498 Ac.	9756 Ac.	11184
TYPE B CLASSIFICATION	140 Ac.	957 Ac.	1097
TYPE C CLASSIFICATION	1180 Ac.	10148 Ac.	11328
TYPE D CLASSIFICATION	137 Ac.	268 Ac.	405
TYPE E CLASSIFICATION	1374 Ac.	1332 Ac.	2706
TOTALS	4329 Ac.	22461 Ac.	26790

★ PUMPING WELL
▲ R&M PUMPING WELL
● VEGETATION MONITOR SITE
— WATER TABLE CHANGE BNDRY.
—— LADWP PROPERTY LINE

INDEPENDENCE, CALIF.
(572-SE)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
5 of 14



LEGEND

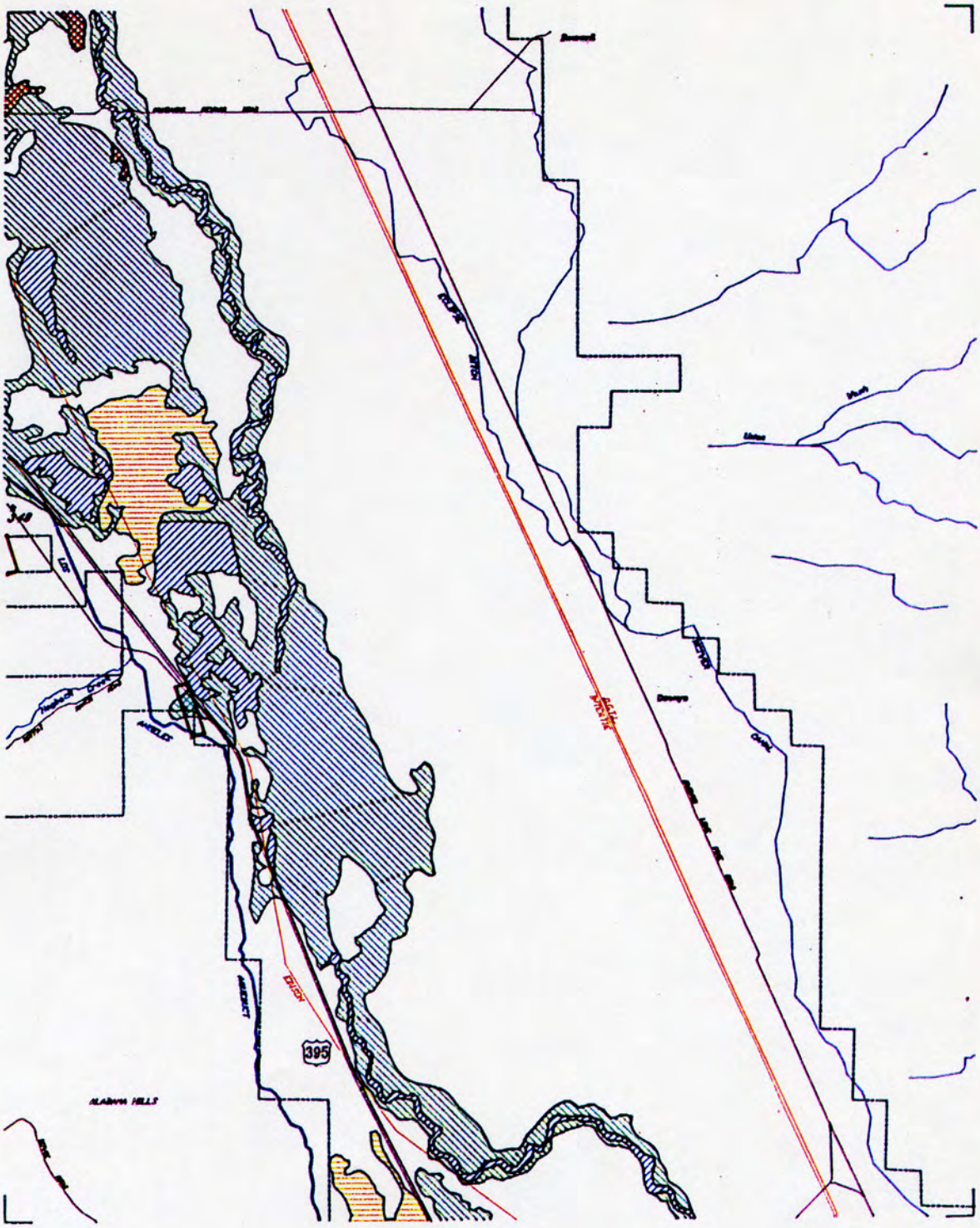
	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	1639 Ac.	4454 Ac.	6093
TYPE B CLASSIFICATION	363 Ac.	817 Ac.	1180
TYPE C CLASSIFICATION	183 Ac.	1102 Ac.	1285
TYPE D CLASSIFICATION		381 Ac.	381
TYPE E CLASSIFICATION	248 Ac.	140 Ac.	388
TOTALS	2373 Ac.	6894 Ac.	9267

★ PUMPING WELL
▲ R&M PUMPING WELL
● VEGETATION MONITOR SITE
—— WATER TABLE CHANGE ISOBAT.
—— LADWP PROPERTY LINE

MANZANAR, CALIF.
(361-SE)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
6 of 14



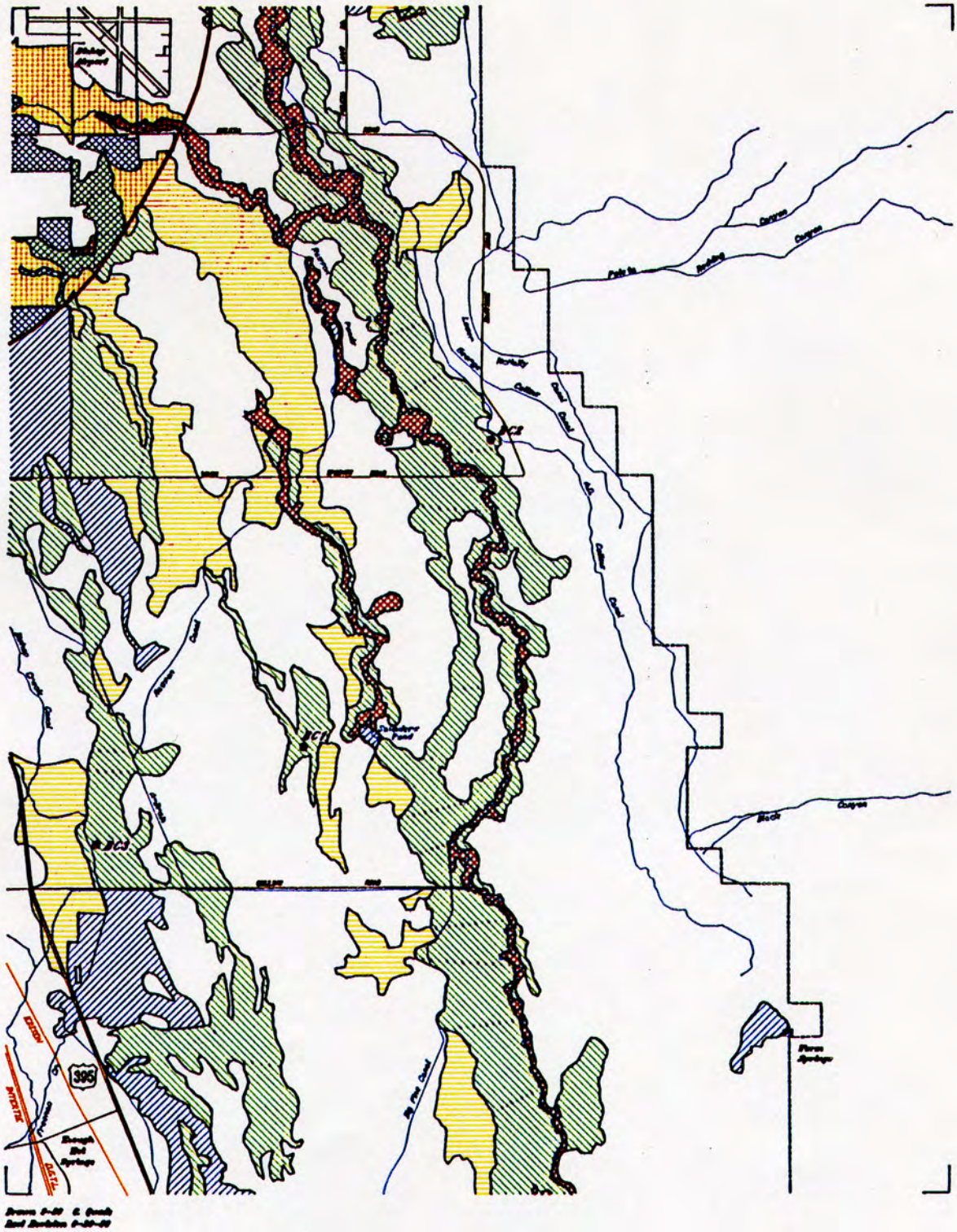
LEGEND

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	14 Ac.	18175 Ac.	18189
TYPE B CLASSIFICATION		694 Ac.	694
TYPE C CLASSIFICATION	9 Ac.	3062 Ac.	3071
TYPE D CLASSIFICATION		47 Ac.	47
TYPE E CLASSIFICATION		792 Ac.	792
TOTALS	23 Ac.	23390 Ac.	23403

★ PUMPING WELL
▲ R&M PUMPING WELL
● VEGETATION MONITOR SITE
—— WATER TABLE CHANGE BNDRY.
—— LADWP PROPERTY LINE

UNION WASH, CALIF. (361-IE)

VEGETATION AND WELLFIELD MANAGEMENT AREA



LEGEND

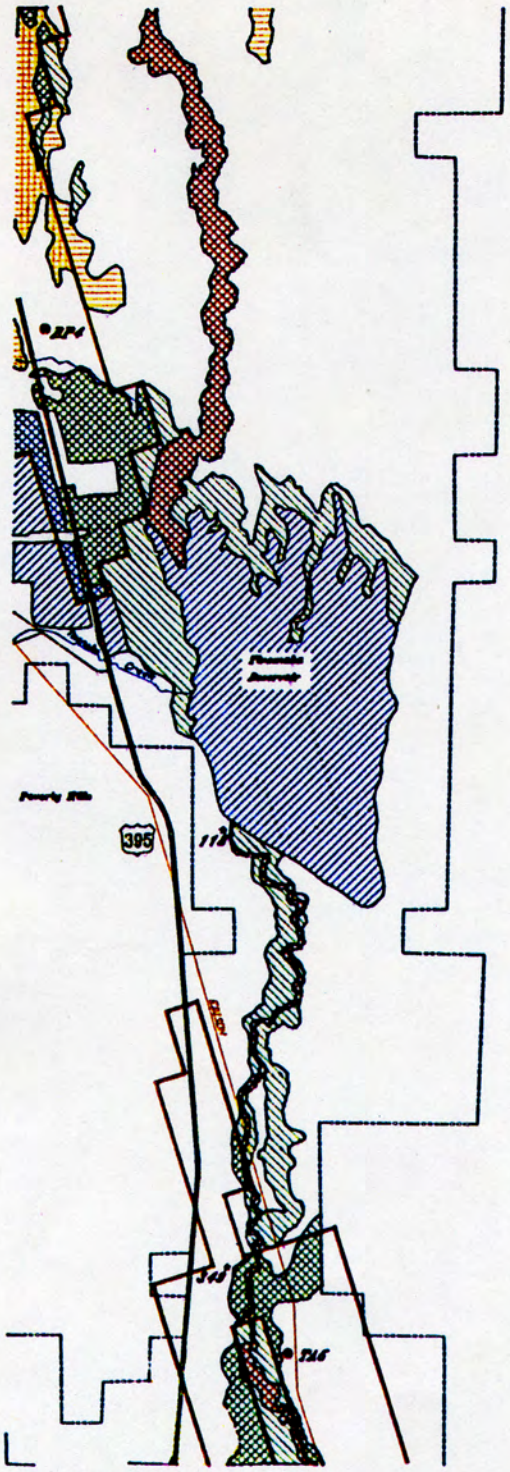
POLETA CANYON, CALIF.
(415-4E)

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	729 Ac.	14483 Ac.	15212
TYPE B CLASSIFICATION	414 Ac.	2492 Ac.	2906
TYPE C CLASSIFICATION	108 Ac.	6088 Ac.	6196
TYPE D CLASSIFICATION	35 Ac.	764 Ac.	799
TYPE E CLASSIFICATION	174 Ac.	1133 Ac.	1307
TOTALS	1611 Ac.	23880 Ac.	25410

VEGETATION AND WELLFIELD MANAGEMENT AREA

- PUMPING WELL
- R&M PUMPING WELL
- VEGETATION MONITOR SITE
- WATER TABLE CHANGE BNDRY.
- LADWP PROPERTY LINE

Exhibit A
8 of 14



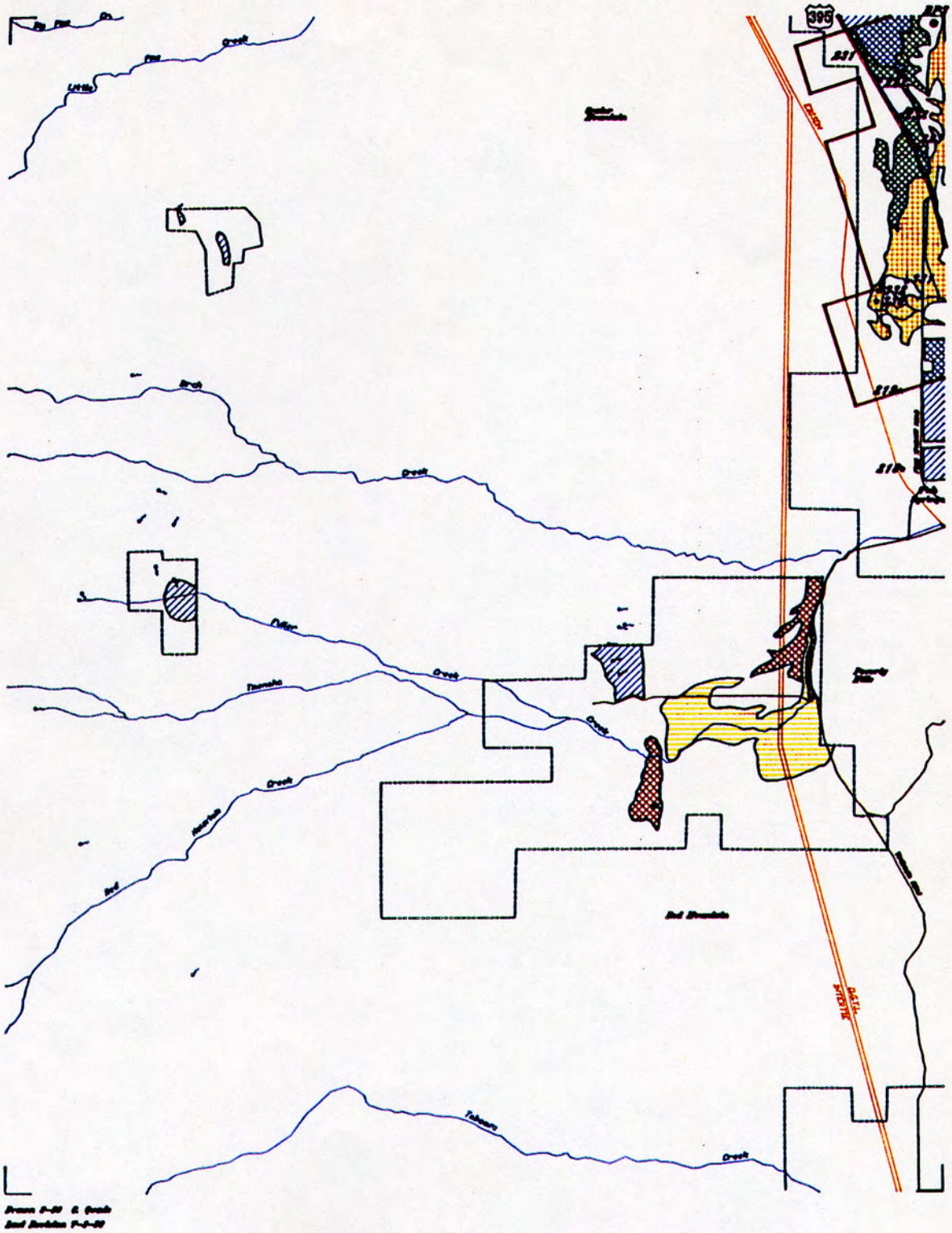
LEGEND

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	1124 Ac.	6756 Ac.	7880
TYPE B CLASSIFICATION	110 Ac.	215 Ac.	325
TYPE C CLASSIFICATION	600 Ac.	905 Ac.	1493
TYPE D CLASSIFICATION	13 Ac.	486 Ac.	499
TYPE E CLASSIFICATION	78 Ac.	1551 Ac.	1629
TOTALS	1833 Ac.	9972 Ac.	11805

- ★ PUMPING WELL
- ▲ R&M PUMPING WELL
- ● VEGETATION MONITOR SITE
- —— WATER TABLE CHANGE BNDRY.
- ----- LADWP PROPERTY LINE

TINEMAHA RESERVOIR, CALIF.
(3SS-3E)

VEGETATION AND WELLFIELD MANAGEMENT AREA



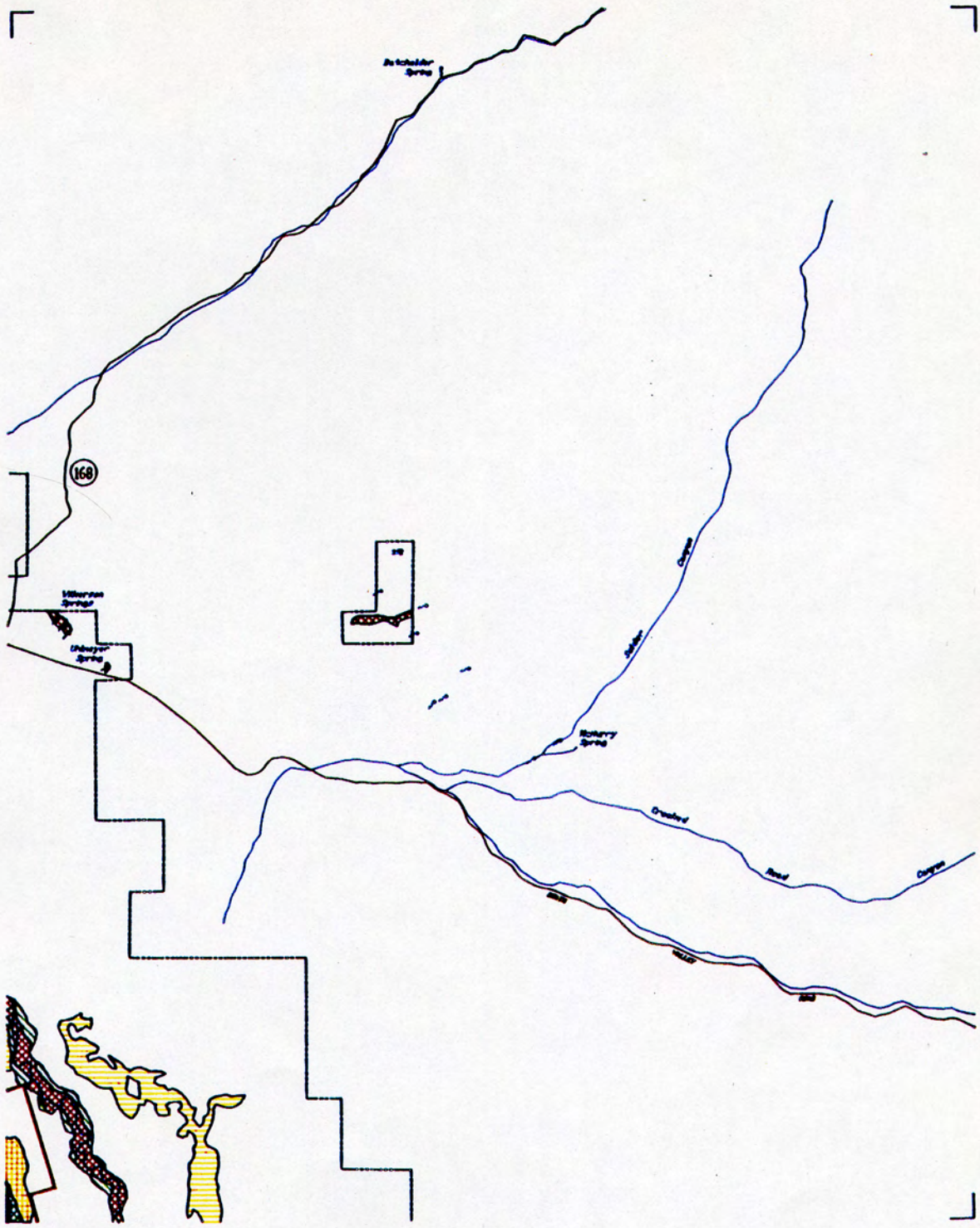
LEGEND

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	684 Ac.	4490 Ac.	5974
TYPE B CLASSIFICATION	286 Ac.	384 Ac.	670
TYPE C CLASSIFICATION	171 Ac.	24 Ac.	195
TYPE D CLASSIFICATION		163 Ac.	163
TYPE E CLASSIFICATION	97 Ac.	199 Ac.	296
TOTALS	1148 Ac.	5260 Ac.	6408

- PUMPING WELL
- R&M PUMPING WELL
- VEGETATION MONITOR SITE
- WATER TABLE CHANGE ISOBAT.
- LADWP PROPERTY LINE

FISH SPRINGS, CALIF.
(395-4E)

VEGETATION AND WELLFIELD MANAGEMENT AREA



LEGEND

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	83 Ac.	3795 Ac.	3878
TYPE B CLASSIFICATION	48 Ac.	232 Ac.	280
TYPE C CLASSIFICATION	8 Ac.	64 Ac.	72
TYPE D CLASSIFICATION		143 Ac.	143
TYPE E CLASSIFICATION			
TOTALS	139 Ac	4234 Ac.	4373

- PUMPING WELL
- RAW PUMPING WELL
- VEGETATION MONITOR SITE
- WATER TABLE CHANGE BNDRY.
- LADWP PROPERTY LINE

UHLMEYER SPRING, CALIF.
(392-2E)

VEGETATION AND WELLFIELD MANAGEMENT AREA

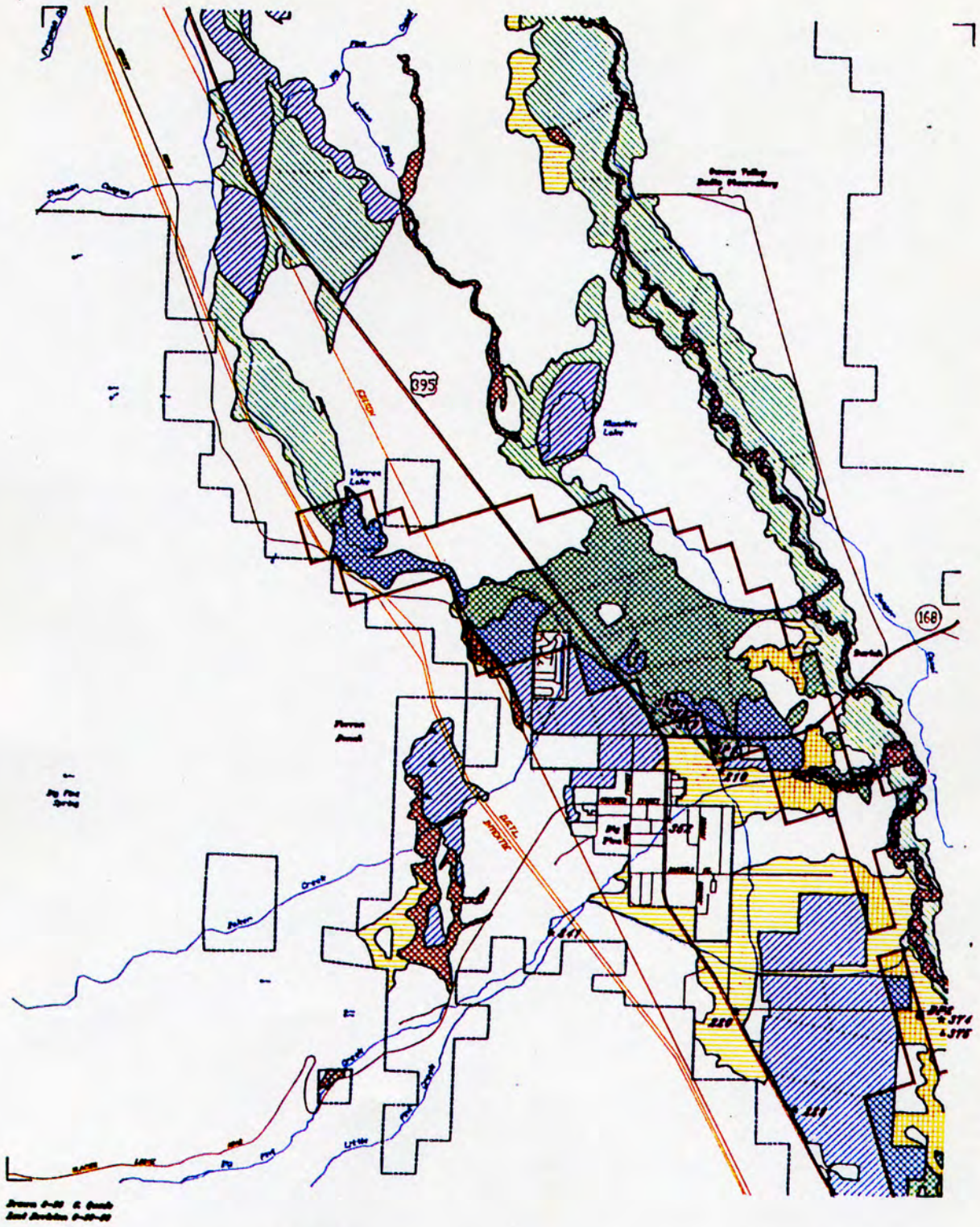
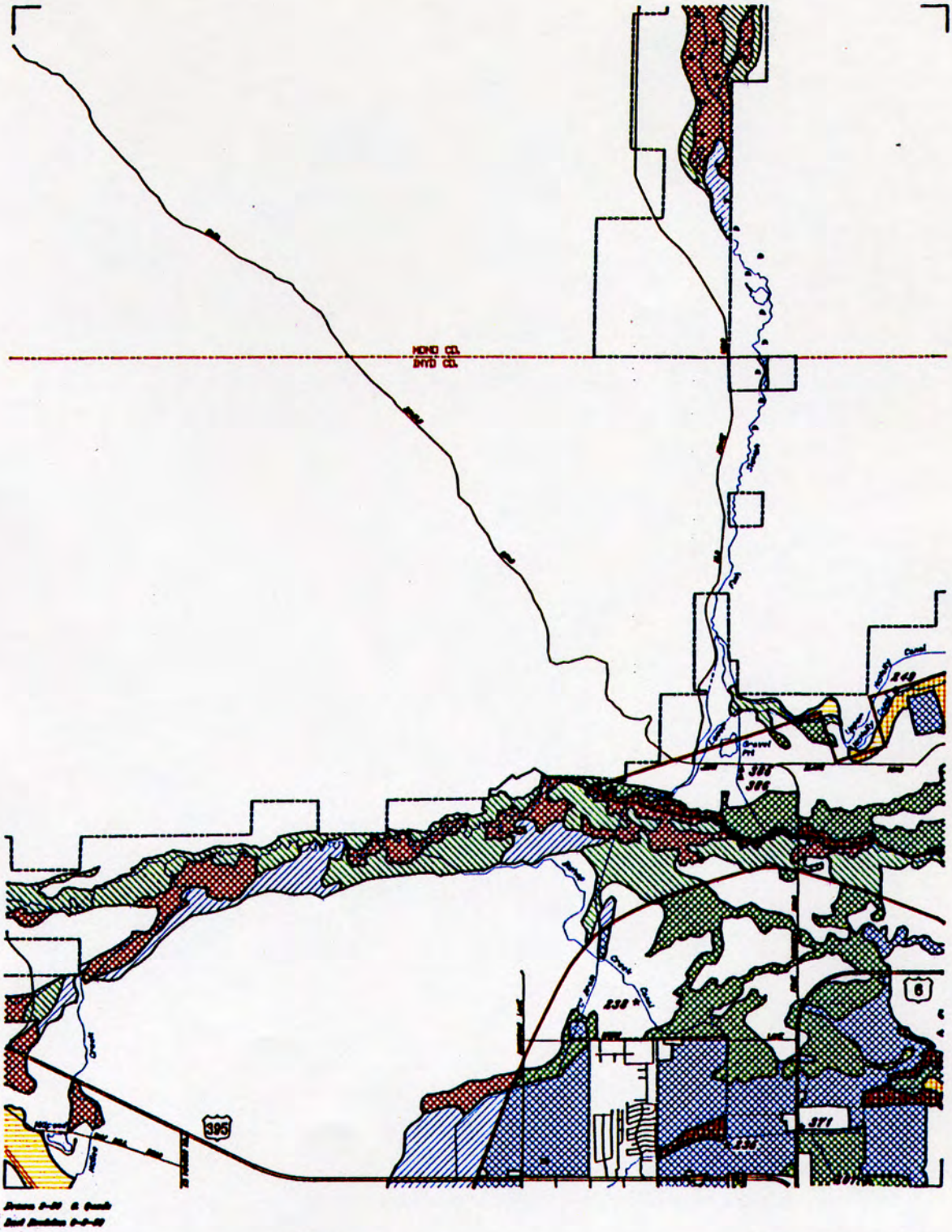


Exhibit A
12 of 14



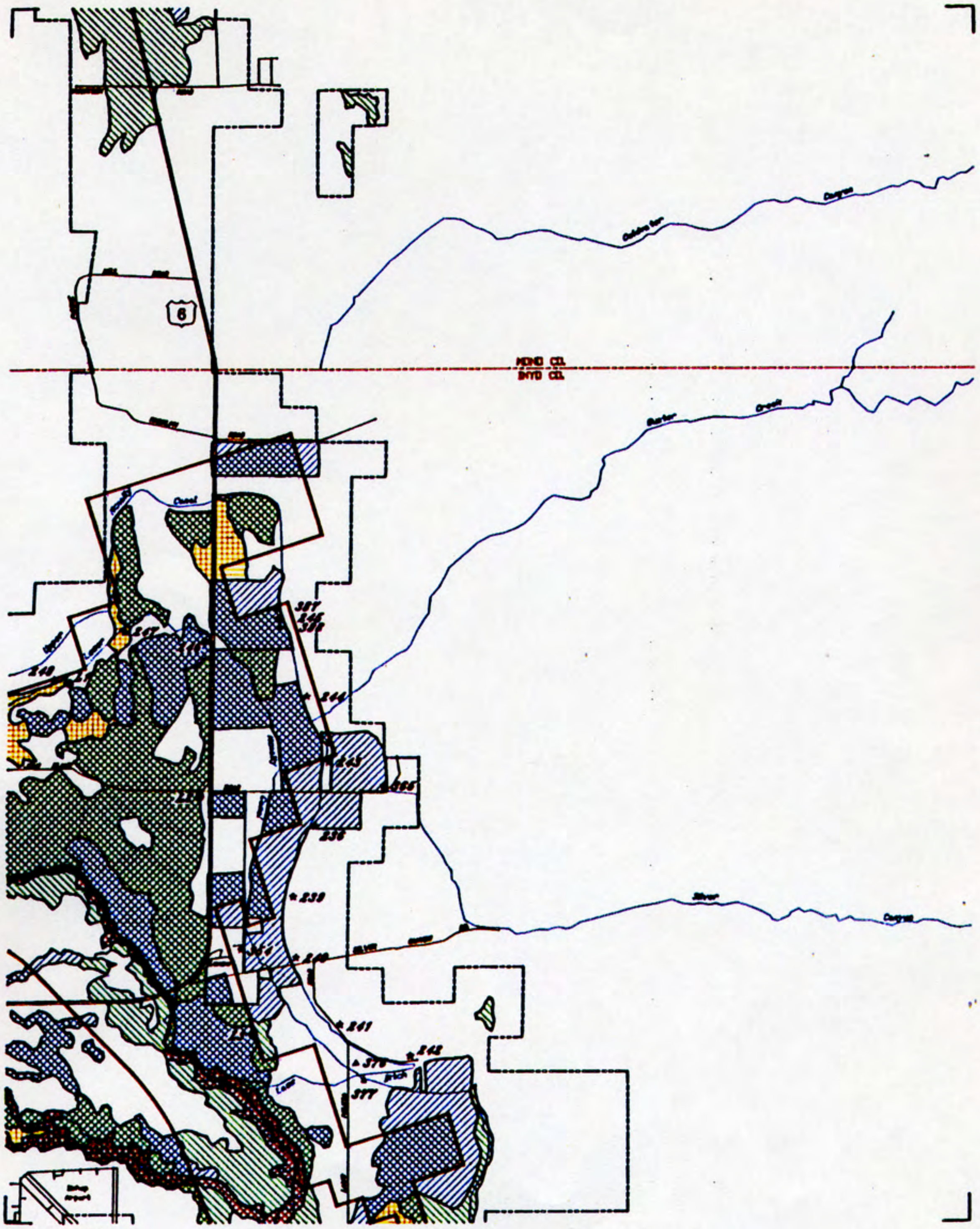
LEGEND

	WATER TABLE CHANGE GREATER THAN 10 FEET	WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION	2000 Ac.	7987 Ac.	9987
TYPE B CLASSIFICATION	65 Ac.	128 Ac.	193
TYPE C CLASSIFICATION	1237 Ac.	1092 Ac.	2329
TYPE D CLASSIFICATION	130 Ac.	931 Ac.	1061
TYPE E CLASSIFICATION	1343 Ac.	620 Ac.	1963
TOTALS	4835 Ac.	9758 Ac.	14673

- ★ PUMPING WELL
- ▲ BLM PUMPING WELL
- ● VEGETATION MONITOR SITE
- WATER TABLE CHANGE BNDRY
- LADWP PROPERTY LINE

FISH SLOUGH, CALIF.
(413-2E)

VEGETATION AND WELLFIELD MANAGEMENT AREA



LEGEND

		WATER TABLE CHANGE GREATER THAN 10 FEET		WATER TABLE CHANGE LESS THAN 10 FEET	TOTAL ACREAGE
TYPE A CLASSIFICATION		2879 Ac.		4674 Ac.	7553
TYPE B CLASSIFICATION		132 Ac.		111 Ac.	243
TYPE C CLASSIFICATION		1406 Ac.		1062 Ac.	2468
TYPE D CLASSIFICATION		206 Ac.		98 Ac.	304
TYPE E CLASSIFICATION		1398 Ac.		782 Ac.	2180
TOTALS		6021 Ac.		6727 Ac.	12748

- ★ PUMPING WELL
- ▲ RAM PUMPING WELL
- ● VEGETATION MONITOR SITE
- —— WATER TABLE CHANGE BNDRY.
- —— LADWP PROPERTY LINE

LAWS, CALIF.
(418-1H)

VEGETATION AND WELLFIELD MANAGEMENT AREA

Exhibit A
14 of 14

POSSIBLE LAND DIVESTMENTS

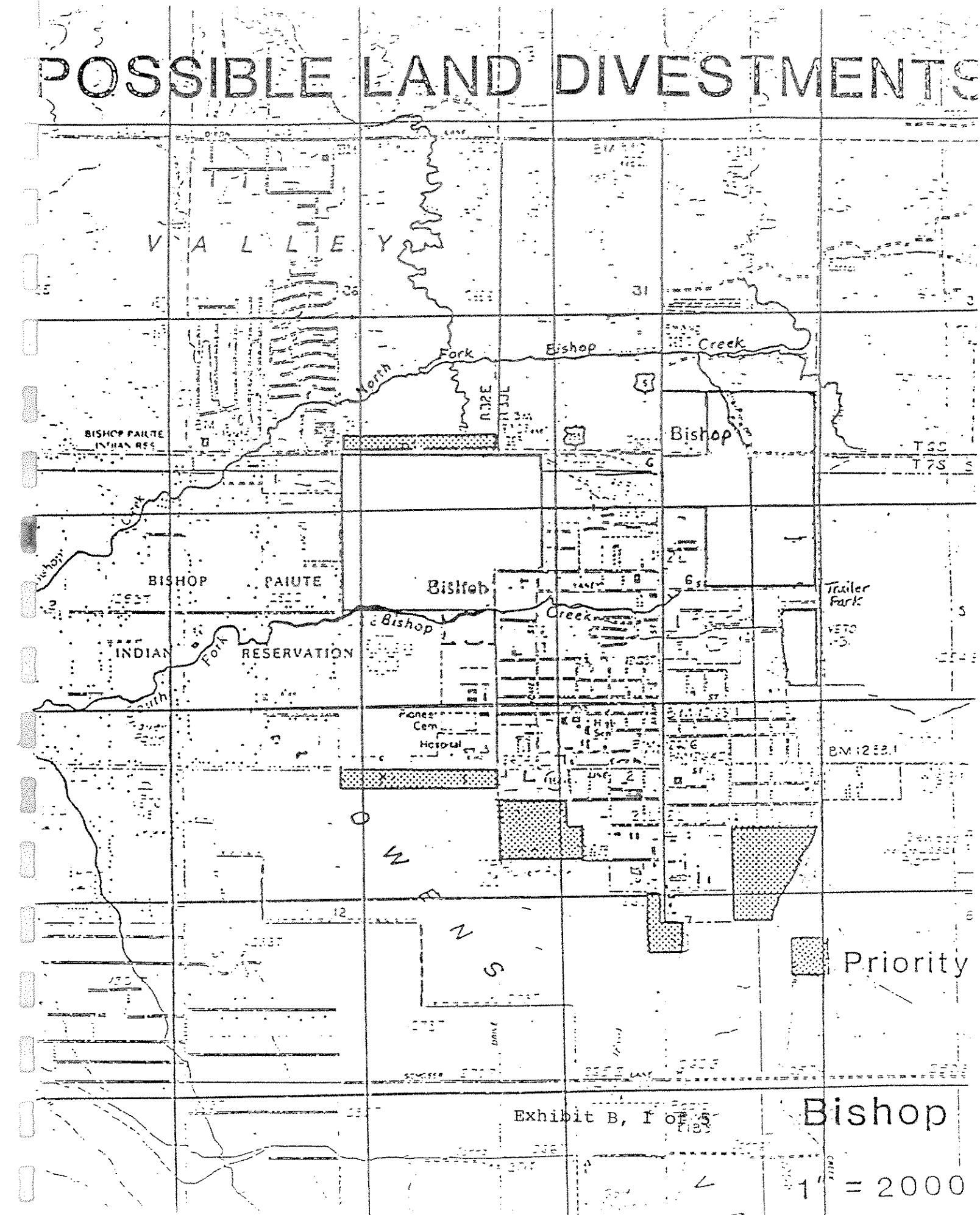


Exhibit B, 1 of 5

POSSIBLE LAND DIVESTMENT

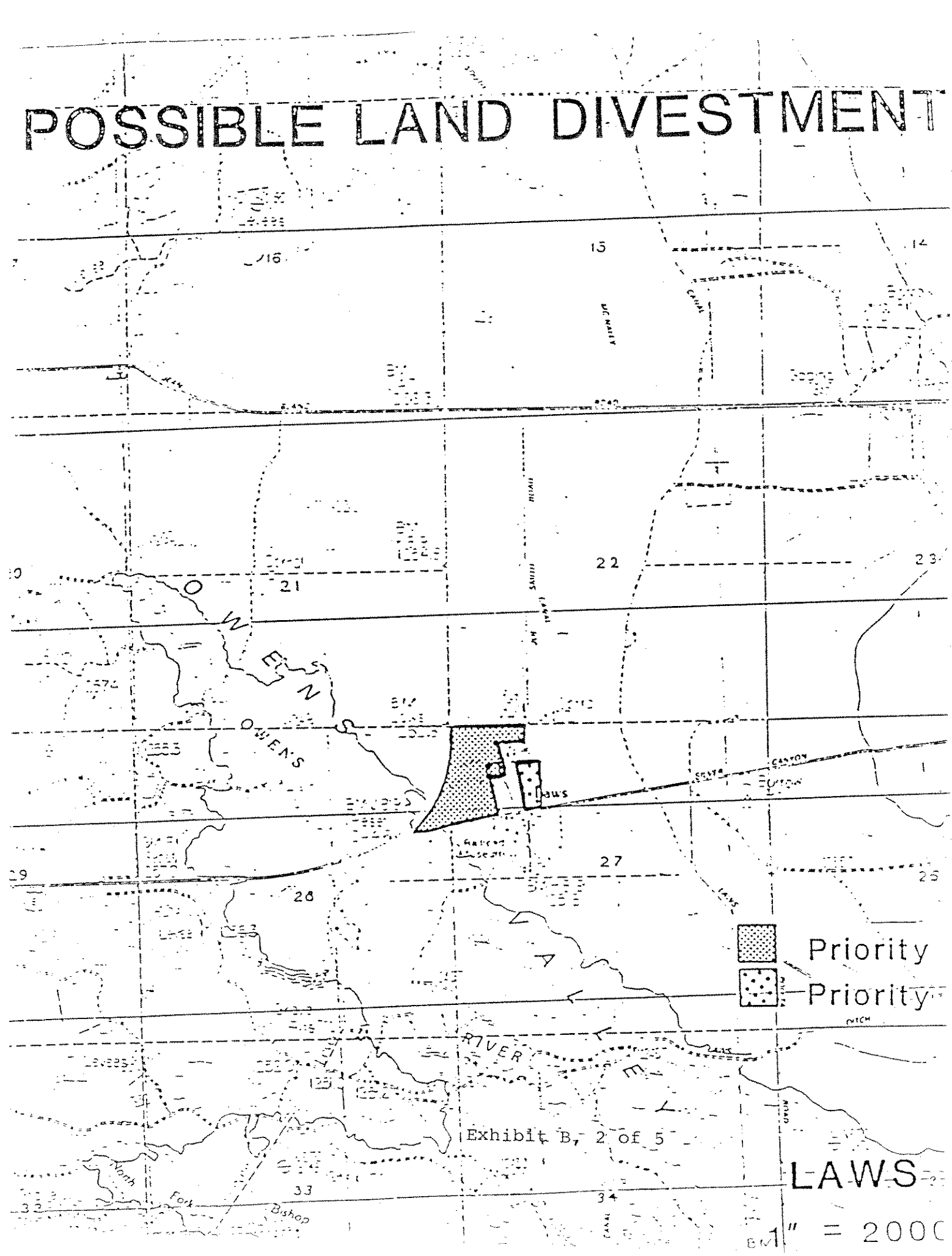
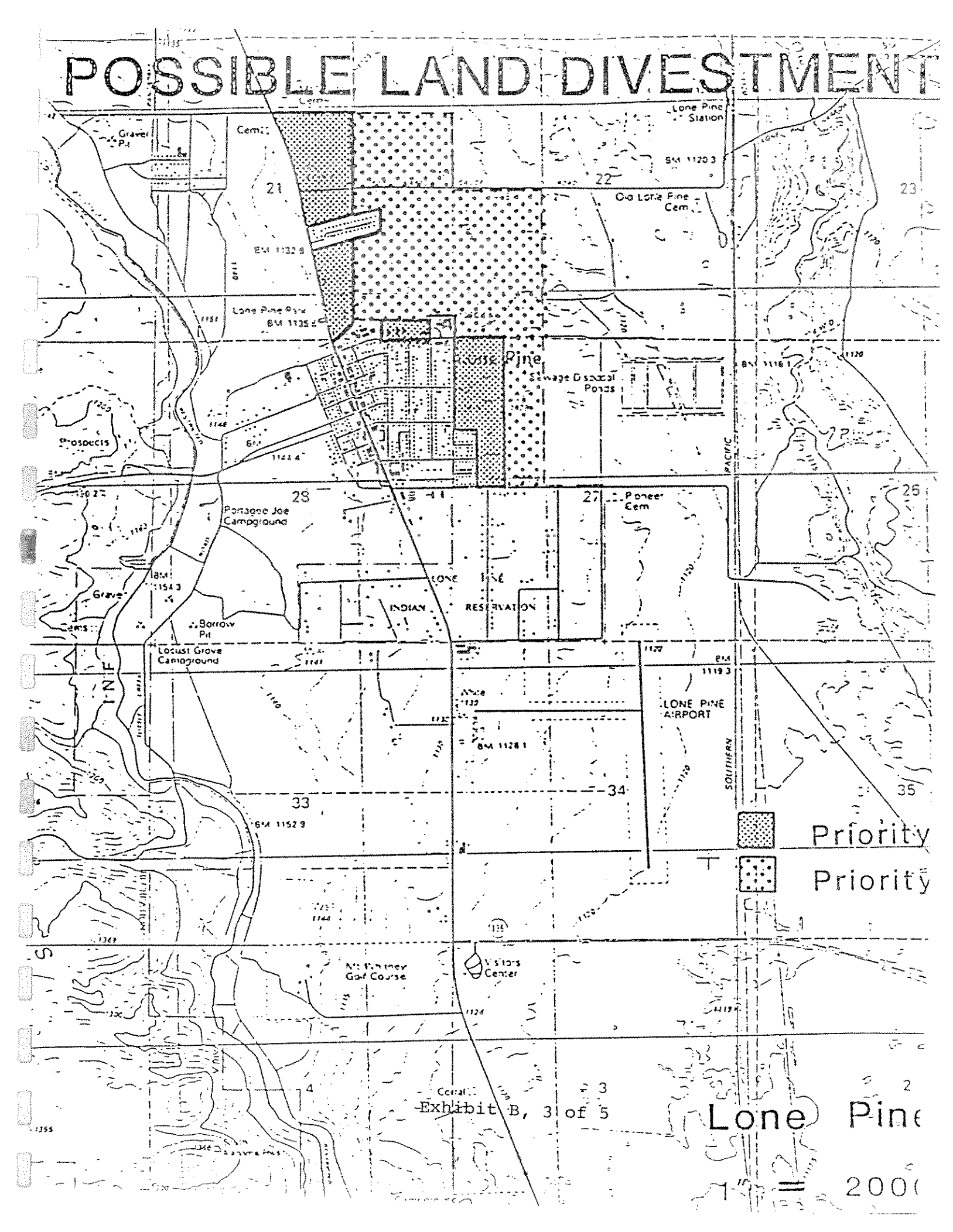
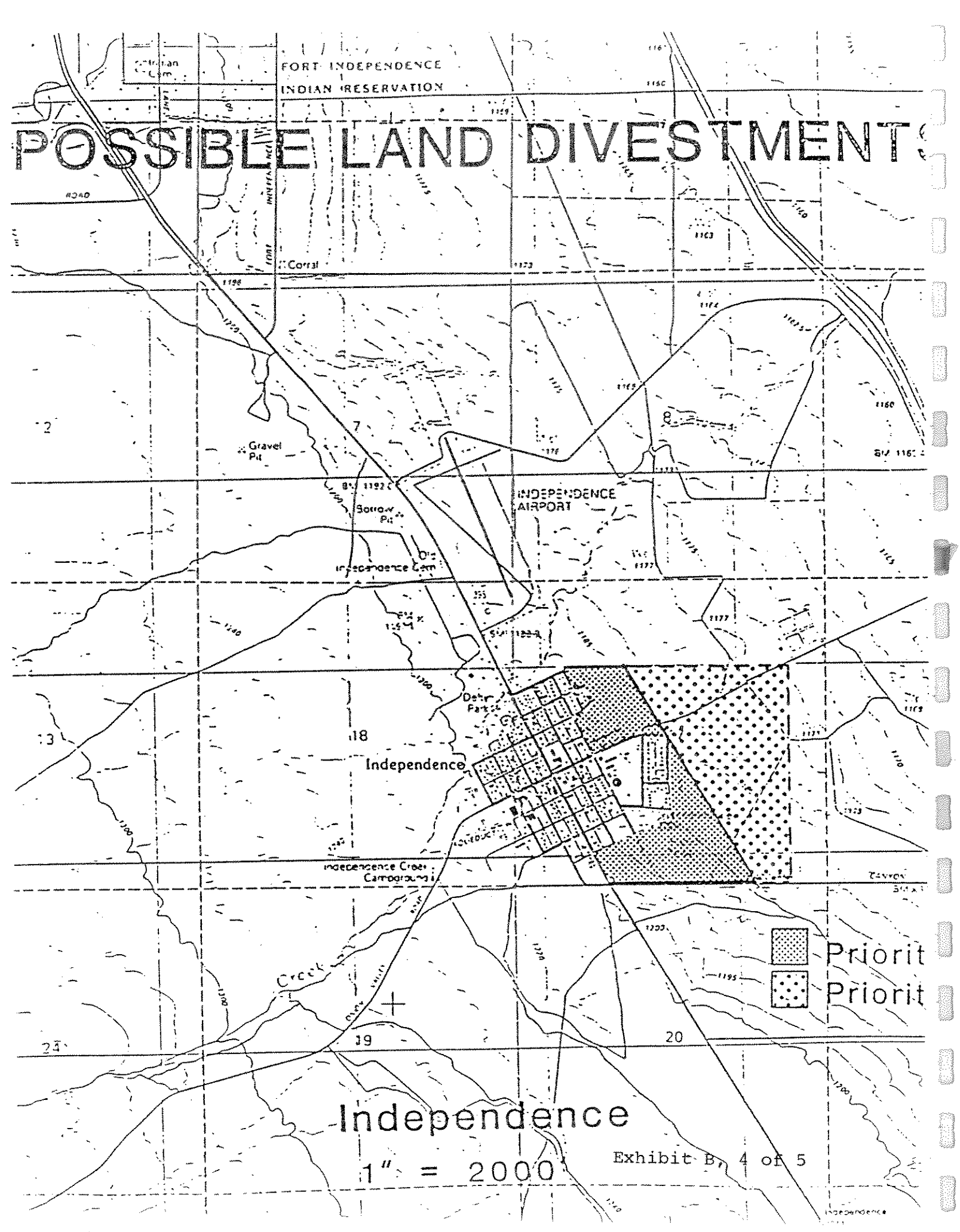
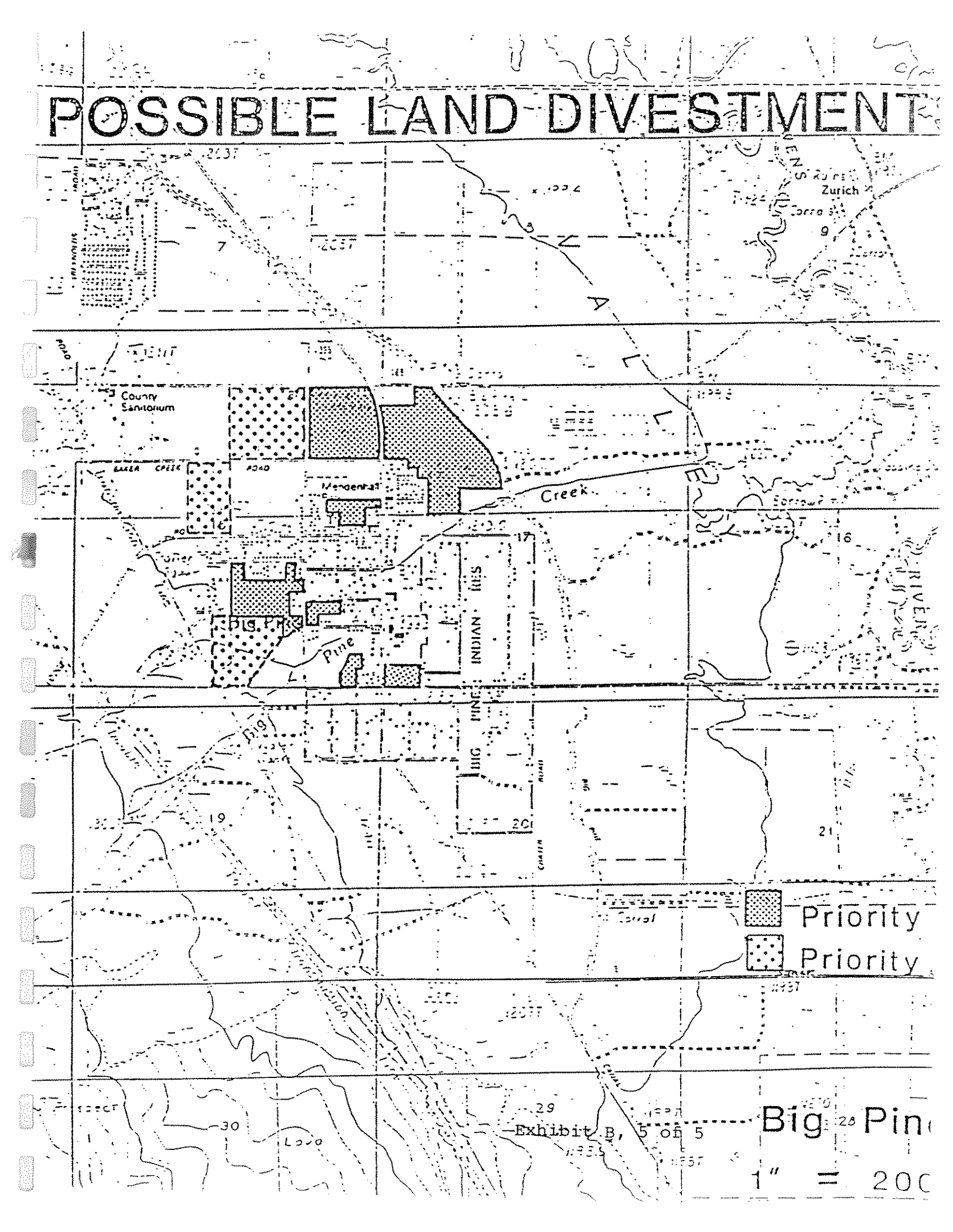


Exhibit B, 2 of 5


POSSIBLE LAND DIVESTMENT
Lone Pine Station
Cem
Gravel Pit
BM 1120.3
22
21
23
Old Lone Pine Cem
BM 1132.8
Lone Pine Pipe
BM 1135.6
Lone Pine
Sewage Disposal Ponds
BM 1116.1
Prosoecis
PACIFIC
28
27
25
Pioneer Cem
Portagee Joe Campground
Grave
BM 1154.3
LONE PINE INDIAN RESERVATION
Cems
Borrow Pit
Locust Grove Campground
INF
BM 1119.3
LONE PINE AIRPORT
BM 1128.1
SOUTHERN
34
33
35
BM 1152.9
Priority
Priority
Mt Whitney Golf Course
Visitors Center
Cem
4
3
2
Exhibit B, 3 of 5
Lone Pine
1" = 200'


POSSIBLE LAND DIVESTMENT
FORT INDEPENDENCE
INDIAN RESERVATION
Corral
Gravel Pit
Borrow Pit
INDEPENDENCE AIRPORT
Independence Cem
Debris Pond
Independence
Independence Creek Campground
Priorit
Priorit
Independence
1" = 2000'


POSSIBLE LAND DIVESTMENT
Zurich
County Sanitorium
Mendenhall
Creek
Pine
INDIAN LINES
BIG PINE
Priority
Priority
Exhibit B, 5 of 5
Big Pin
1" = 200

C. WILDLIFE HABITAT TABLE

APPENDIX C
WILDLIFE HABITAT TABLE

Legend

Habitat Types

A – Freshwater aquatic

B – Tule Marsh Complex

C – Riparian/woodland

D – Alkali grassland

E – Alkali scrubland

F – Semi-desert scrubland

G – Irrigated/Agricultural land

H – Barren land

I – Urban

* – higher elevations only

Abundance & Occurrence

C – Common

FC – Fairly common

U – Uncommon

R – Rare

A – Accidental

M – migrant

Food

1. Woody plants
   a) fruit
   b) vegetation
   c) nectar
2. Weeds & herbs
   a) seeds
   b) vegetables
   c) nectar
3. Marsh & aquatic
   a) seeds
   b) vegetation
4. Cultivated plants
5. Grasses
   a) seeds
6. Aquatic insects
7. Terrestrial insects
8. Fish
9. Reptiles
10. Amphibians
11. Mollusks
    a) snails
12. Crustaceans

sr – summer resident

wr – winter resident

yl – yearlong resident

B – Breeds locally

T – Transient

N – Nocturnal

H – Hibernates (winter dormancy)

13. Worms
    a) earthworms
    b) aquatic

14. Spiders

15. Small mammals
    a) rodents
    b) rabbits
    c) carrion

16. Birds
    a) small birds
    b) game & Poultry
    c) eggs

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS			
Gaviiformes			
Common loon (*Gavia immer*)	A,B	FC, m	851,25,11,10,6
Podicipediformes			
Eared grebe (*Podiceps nigricollis*)	A,B	C. sr, B	8,6,11,12
Pied-billed grebe (*Podilymbus podiceps*)	A,B	FC, yl, B	12,8,11,6
Western grebe (*Aechmophorus occidentalis*)	A,B	C, sr, B	8,6,11,12
Pelecaniformes			
White pelican (*Pelicanus erythrorhynchos*)	A	FC, m	8
Double-crested cormorant (*Phalacrocorax auritus*)	A	FC, m	8,12,13
Ciconiiformes			
Great blue heron (*Ardea heroides*)	A,B,G	C, yl, B	8,6,12,15a,10,9
Green heron (*Butorides virescens*)	A,B	U, M,	12,8,6
Black-crowned night heron (*Nycticorax nycticorax*)	A,B	U, m	8,12,6,10,15a
American bittern (*Botaurus lentiginosus*)	A,B	FC, yl, B	8,6,10,12,15a
Least bittern (*Ixobrynchus exilis*)	A,B	R, m	6,10,8,12,15a
Common egret (*Casmerodius albus*)	A,B,G	U, m	12,6,10,8,9,15a
Snowy egret (*Egretta thula*)	A,B,G	FC, m (R,sr)	12,6,10,8,9,15a
Cattle egret (*Bublcus ibis*)	A,B,D,G	R, m	10,9,12,6,8
White-faced ibis (*Plegadis chihi*)	B,G	A, T	8,6,12,11a
Anseriformes			
Whistling swan (*olor columbianus*)	A,B	FC, wr(locally)	5,3,2,6
Canada goose (*Branta canadensis*)	A,B,G	C, m	3,2a,4,5,7,12,11
White-fronted goose (*Anser albifrons*)	A,B,G	R, m	3,2a,4,5,7
Snow goose (*Chen hyperborea*)	A,B,G	R, m	3,2a,5,4,7,12,11
Ross' goose (*Chen rossii*)	A,B,G	A, m	4,3
Mallard (*Anas platyrhynchos*)	A,B,G	C, yl, B	3,2,5,4,1a,6,11
Gadwall (*Anas streptera*)	A,B,G	FC, yl, B	3,2,5,4,11a,6
Pintail (*Anas acuta*)	A,B,G	C, m	3,2,5,4,11,12,8,6,10,13
Green-winged teal (*Anas crecca*)	A,B	C, m	3,2,5,6,11a
Blue-winged teal (*Anas discors*)	A,B	U, m	3,2,4,5,6,11a,12
Cinnamon teal (*Anas cyanoptera*)	A,B	C, sr, B	3,2,5,6,11a
European widgeon (*Anas penelope*)	A,B,G	R, m	6,3,4,5,11,12

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
American widgeon (*Anas americana*)	A,B,G	C, m	3,2,4,5,11,6,12
Nothern shovler (*Anas clypeata*)	A,B	FC, m	3,2,5,11,6,8,12
Wood duck (*Aix sponsa*)	A,B,C	R, yl, B	3,2,1a,5,6,7,14
Redhead (*Aythya americana*)	A,B	FC, m	3,2,5,6,7,11
Ring-necked duck (*Aythya collaris*)	A,B	U, m	3,2,5,11,6,7,12
Canvasback (*Aythya valisineria*)	A,B	U, m	3,2,5,11a,6,8
Lesser scaup (*Aythya affinis*)	A,B	FC, wr	3,2,11a,12,6
Common goldeneye (*Bucephala clangula*)	A,B	U, m	12,6,11,3,8
Bufflehead (*Bucephala albeola*)	A,B	C, wr	6,12,11a,3,2,8
Surf scoter (*Melanitta perspicillata*)	A,B	A, m	3,11,12,6,8
Ruddy duck (*Oxyura jamaicensis*)	A,B	C, yl, B	3,6,2,11a,5,12
Common merganser (*Mergus merganser*)	A,B	FC, wr	8,12,10,6,11a
Red-breasted merganser (*Mergus serrator*)	AIB	R, m	8,12,10,6,11a
Falconiformes			
Turkey vulture (*Cathartes aura*)	B,C,D,E,F,G,I	C, sr, B	15c
White-tailed kite (*Elanus leucurus*)	C,D,E	A, m	9,10,7
Goshawk (*Accipiter gentiles*)	C*	U, yl, B	16b+c,15,7,10
Sharp-shinned hawk (*Accipiter striatus*)	C	FC, yl, B	16,15,7,10
Cooper's hawk (*Accipiter cooperi*)	C	U, yl, B	16b+c,15,7,10
Red-tailed hawk (*Buteo jamaicensis*)	C,D,E,F,G,H,I	C, yl, B	15,7,16,10,9,12
Red-shouldered hawk (*Buteo lineatus*)	C,D	R, m	15a+b,9,16a
Swainson's hawk (*Buteo swainsoni*)	B,C,D,E,F,G,H	U, sr, B	15a+b,7,9,16
Rough-legged hawk (*Buteo lagopus*)	C,D,E,F,G,H	C, wr	15a+b,7,16,10,12
Ferruginous hawk (*Buteo regalis*)	C,D,E,F,G,H	U, wr	15a+b,7,16,9
Marsh hawk (*Circus cyaneous*)	B,C,G	C, yl, B	16,15a+b,10,7,12
Golden eagle (*Aquila chrysaetos*)	B,C,D,E,F,G,H	FC, yl, B	15,9,16
Bald eagle (*Haliaeetus leucocephalus*)	A	R, wr	8
Osprey (*Pandion haliaetus*)	A	U, sr, B	8
Prairie falcon (*Falco mexicanus*)	B,C,D,E,F,G	FC, yl, B	16,15,7
Peregrine falcon (*Falco pereqrinus*)	E,F	R, T (winter)	16,15,7
Pigeon hawk (*Falco columbarius*)	B,C,D,E,F,G,H	R, wr	16,15a,7
American kestrel (*Falco sparverius*)	B,C,D,E,F,G,H	C, yl, B	7,15a,16a+c,9,10
Galliformes			
California quail (*Lophortyx californicus*)	B,C,D,E,F,G	C, yl, B	2,5,1a,7,4
Mountain quail (*Oreortyx pictus*)	C*	U, wr	2,5,1a,7
Ring-necked pheasant (*Phasianus colchicus*)	B,C,G	U (planted)	2a,7,13a,4,10,11a
Chukar (*Alectoris graeca*)	D,E,F	FC, yl, B	5, 2,1a

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Gruiformes			
Sandhill crane (*Grus canadensis*)	B,D,G	R, wr	5,2a,7,4,11a,10,1a,9
Virginia rail (*Rallus limicola*)	B	FC, yl, B	7,6,11a,14,3a,12
Sora (*Porzana carolina*)	B	FC, yl, B	3,6,7,11a,14,2,12
Yellow rail (*Coturnicops noveboracensis*)	B	R, sr, B	6,7,11a,3,5,2,14,12
Common gallinule (*Gallinula chloropus*)	A,B	R, sr, B	6,11a,3a,2a,5a,13b,14
American coot (*Pulica americana*)	A,B	C, yl, B	3,2,6,12,11,14
Charadriiformes			
Semi-palmated plover (*Charadrius semipalmatus*)	B	R, m	6,13b,12,11
Snowy plover (*Charadrius alexandrinus*)	B	R, wr	6,13b,12,11
Killdeer (*Charadrius vociferus*)	B,G	C, yl, B	7,6,11a
Mountain plover (*Charadrius montanus*)	C,D	R, m	6,13b,12,11
Black-bellied plover (*Squatarola squatarola*)	B	A, m	6,13b,12,11
Common snipe (*Capella gallinago*)	B	FC, yl, B	6,7,12,13b,11a,8
Long-billed curlew (*Numenius americanus*)	B,D	R, m	11a,6,7,12,13a,14
Whimbrel (*Numenius phaeopus*)	B	R, m	6,7,12,11,13b
Marbled godwit (*Limosa fedoa*)	A,B	R, m	3,6,7,12,11
Spotted sandpiper (*Actitus macularia*)	B,C	C, sr, B	6,7,12,11,13b
Solitary sandpiper (*Tringa solitaria*)	B	U, m	6,7,12,11,13b
Willet (*Catoptrophorus semipalmatus*)	B	U, m	6,13b,12,13a,B
Greater yellowlegs (*Totanus melanoleucus*)	B	U, m	8,6,7,11a,13b,12
Lesser yellowlegs (*Totatas fiavipes*)	B	A, m	7,6,8,12,11a,13b
Least sandpiper (*Calidris minitilla*)	A,B	U, wr	6,7,12,11,13b
Pectoral sandpiper (*Erolia melanotis*)	A,B	R, m	6,7,12,11,13,3
Dunlin (*Calidris alpina*)	A,B	R, m	6,7,12,11,13b
Long-billed dowitcher -(*Limnodronus scolopaceus*)	A,B	U, wr	7,6,13b,11,12,3a,5
Western sandpiper (*Calidris mauri*)	A,B	U, m	6,7,12,11,13b
Baird's sandpiper (*Calidris bairdi*)	A,B	U, m	6,7,13b,12,11
American avocet (*Recurvirostra americana*)	A,B	C, sr, B	6,7,12,11,13b,3a
Black-necked stilt	A,D	FC, ar, B	6,7,11a,8
Wilson's phalarope (*Steganopus tricolor*)	A,B	C, sr, B	6,12,11a
Northern phalarope (*Lobipes lobatus*)	A,B	U, m	6,12,11a
California gull (*Larus californicus*)	A,B,D,E	C, sr, B	8,7,10,11,16a+c,garbage
Ring-billed gull (*Larus delewarensis*)	A,B,D,E	U, m	8,7,10,11,garbage
Bonaparte's gull (*Larus philadelphia*)	A,B	R, m	8,7,10,11,4,garbage
Sabine's gull (*Xema sabini*)	A,B	A, m	8,7,10,11,garbage
Forster's tern (*Sterna forsteri*)	A,B	U, m	8,12,6

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Caspian tern (*Hydroprogne caspie*)	A,B	U, sr	8,12,6
Black tern (*Chlidonias niqer*)	A,B	U, m	6,7,10,14,11a,4
Columbiformes			
Band-tailed pigeon (*Columba fasciata*)	C*	R, m	1a,7,4
Rock dove (*Columba liva*)	D,I	FC, yl, B	2a,5a,7,4
Mourning dove (*Zenaidura macroura*)	C,D,G	C, sr, B	2a,5a,4,7,14
White-winged dove (*Zenaidura asiatica*)	C,D,G	A, m	2a,4,5a,7,14
Ground dove (*Columbians passerina*)	c	A, m	2a,5a,7
Cuculiformes			
Roadrunner (*Geococcvx californianus*)	C,D,E,F,G,H	C, yl, B	9,7,14,15a
Yellow-billed cuckoo (*Coccyzus americanus*)	B,C	R, sr	7
Strigiformes			
Barn owl (*Tyto alba*)	B,C,D,E,F,G,H,I	FC, yl, B	15a+b,16,12,10,7
Screech owl (*Otus asio*)	C	C, yl, B	15a,7,9,16a,10,12
Great horned owl (*Bubo virginianus*)	B,C,D,E,F,G,H	C, yl, B	15a+b,16a+b,12,10,7
Pygmy owl (*Glaucidium gnoma*)	C*	R, m	15a,7,9,16a,10,12
Burrowing, owl (*Speotyto cunicularia*)	D,E,F	FC, sr, B	15a,7,9,16a,10,12
Long-eared owl (*Asio otus*)	C	FC, yl, B	15a,7,9,16a,10,12
Short-eared owl (*Asio flammeus*)	B,C,D	FC, m	15a,7,9,16a,10,12
Saw-whet owl (*Aegolius acadicus*)	C*	R, m	15a,7,16a,9
Flammulated owl (*Otus flammeolus*)	C*	U, sr	15a,7,9,16a
Caprimulgiformes			
Poor-will (*Phalaenoptilus nuttallii*)	D,E,F	U, sr, B, N	7,6
Common nighthawk (*Chorodeiles minor*)	B,C,D,E,F,G,H,I	C, sr, B, N	7
Lesser nighthawk (*Chordeiles acutipennis*)	C,D,E,F	U, sr, B, N	7
Apodiformes			
Black swift (*Cypseloides niger*)	C,F	U, sr	6,7
Vaux's swift (*Chaetura vauxi*)	C	R, m	6,7
White-throated swift (*Aeronautes saxatalis*)	D,E,F	U, sr, B	6,7
Broad-tailed hummingbird (*Selasphorus platycercus*)	C*	FC, sr, B	2c,1c,7,4
Black-chinned hummingbird (*Archilochus alexandri*)	B,C	FC, sr, B	2c,1c,7,4

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Costa's hummingbird (*Calypte costae*)	B,C,D,F	R, sr, B	2c,1c,7,4
Calliope hummingbird (*Stellula calliope*)	C*	R, m	2c,1c,7,4
Rufous hummingbird (*Selasphorus rufus*)	B,C	C, m	2c,1c,7,4
Anna's hummingbird (*Calypte anna*)	C*	R, m	2c,1c,7,4
Coraciiformes			
Belted kingfisher (*Megaceryle alcyon*)	A,B,C	C, yl, B	8,12,11,10,9
Piciformes			
Common flicker (*Colaptes auratus*)	C,I	C3 yl, B	7,1a,14,4
Acorn woodpecker (*Melanerpes formicivorus*)	C*	A, m	1a,7
Lewis' woodpecker (*Asyndesmus lewis*)	C*,F	U, yl, B	1a,7,14
Yellow-bellied sapsucker (*Sphyrapicus varius*)	C	C, sr, B	1,7,14
Williamson's sapsucker (*Sphyrapicus thyroides*)	C*	U, m	7,1,14
White-headed woodpecker (*Dendrocopos albolarvatus*)	C*	FC, yl, B	1a,7,14
Hairy woodpecker (*Dendrocopos villosus*)	C	FC, yl, B	1a,7,14
Downey woodpecker (*Dendrocopos pupescens*)	C*	U, yl, B	7,1a,11a,14
Ladderbacked woodpecker (*Dendrocopos scalaris*)	C,F	R, yl, B	7,1a,14
Nuttall's woodpecker (*Dendrocopos nuttalli*)	C	C, yl, B	7,1a,14
Passeriformes			
Eastern kingbird (*Tyrannus tyrannus*)	C,G,I	R, m	7,1,14
Western kingbird (*Tyrannus verticalis*)	C,G,I	C3 sr, B	7,1a,14
Ash-throated flycatcher (*Myiarchus cinerascens*)	C,F	C, sr, B	7,14
Black phoebe (*Sayornis nigricans*)	B,C,G	FC, yl, B	7,1a,14
Say's phoebe (*Savornis saya*)	C,G,I	C, Yl, B	7,1a,14
Traill's flycatcher (*Empidonax trailii*)	B,C	U, sr	7,14
Hammond's flycatcher (*Empidonax hammondi*)	C*	C, sr, B	7,14
Dusky flycatcher (*Empidonax obernolseri*)	C*	U, m	7,14
Gray flycatcher (*Empidonax wrightii*)	C*,F	FC, sr	7,14
Western flycatcher (*Empidonax difficilis*)	C*	U, m	7,14
Western wood pewee (*Contopus sordidulus*)	C	FC, sr	7,14
Olive-sided flycatcher (*Nuttallornis borealis*)	C	U, m	7,14
Horned lark (*Eremophila alpestris*)	D,E,F	C, yl, b	2a,5,7,4
Violet-green swallow (*Trachycineta thalassina*)	A,B,C,D,E,F,G,I	C, sr, B	7,6,14
Tree swallow (*Iridoprbcne bicolor*)	A,B,C,D,E,F,G,I	FC, m	7,2a,14

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Bank swallow (*Riparia riparia*)	A,B,C	U, sr, B	7,14
Barn swallow (*Hirundo rustica*)	C,F,G,I	C, sr, B	7,14
Cliff swallow (*Petrochelidon pyrrhonota*)	A,B,G,I	FC, sr, B	7,14
Rough-winged swallow (*Stelgidopteryx ruficollis*)	A,B	FC, sr, B	7,14
Purple martin (*Progne subis*)	C,G,I	R, sr	7,14
Steller's jay (*Cyanocitta stelleri*)	C	C, yl, B	1a,7,15a,16c,4
Scrub jay (*Aphelocoma coerulescens*)	F	C, yl, B	1a,7,16c,4
Black-billed magpie (*Pica pica*)	C,D,E,F,G,I	C, yl, B	7,14,15c,1a,2a,4
Common raven (*Corvus corax*)	C,D,E,F,G,H,I	C, yl, B	7,4,15c,12,10,9,1a,2a,],i
Common crow (*Corvus brachyrhynchos*)	C,D,G,I	FC, yl, B	7,4,15c,12,10,9,1a,2a,14
Pinyon jay (*Gymmorhinus cyanocephalus*)	C*,F	U, yl, B	1a,7,14
Clark's nutcracker (*Nucifragra columbiana*)	C*	U, wr	1a,7,14
Mountain chickadee (*Parus gambeli*)	C,F*	FC, wr	7,1a,14
Plain titmouse (*Parus inornatus*)	C*	U, yl, B	7,1a,14
Common bushtit (*Psaltriparus minimus*)	C	C, yl, B	7,1a,2a,14
White-breasted nuthatch (*Sitta carolinensis*)	C*	FC, wr	1a,7,2a,14
Red-breasted nuthatch (*Sitta canadensis*)	C*	FC, wr	1a,2a,7,14
Pygmy nuthatch (*Sitta pygmaea*)	C*	U, wr	1a,2a,7,14
Brown creeper (*Certhia familiaris*)	C*	FC, wr	7,14,1a,5a,4
Dipper (*Cinclus mexicanus*)	A,B	C, yl, B	7,11a,8
House wren (*Troglodytes aedon*)	B,C,I	C, sr	6,7,11a,14
Winter wren (*Troglodytes troglodytes*)	C	R, yl, B	7,14
Bewick's Wren (*Thryomanes bewickii*)	B,C	C, yl, B	7,14,9
Long-billed marsh wren (*Telmatodytes palustris*)	B	Cp yl, B	7,6,9,14
Canyon wren (*Catherpes mexicanus*)	F	U, yl, B	7,9,14
Rock wren (*Salpinctes obsoletus*)	F	FC, yl, B	7,9,14
Mockingbird (*Mimus polyglottos*)	C,F,G,I	FC, sr, B	7,1a,2a
Le Conte's thrasher (*Toxostoma lecontei*)	F	U, sr	7,1a,13a
Sage thrasher (*Oreoscoptes montanus*)	E,F	FC, sr, B	7,1a,13a
American robin (*Turdus migratorius*)	C,G,I	C, yl, B	7,13a,1a,5a
Varied thrush (*Ixoreus naevis*)	C	U, m	7,1a
Hermit thrush (*Hylocichla guttata*)	C*	FC, Sr	7,1a
Swainson's thrush (*Catharus ustulata*)	C	U, m	7,13a,11a,1a
Western bluebird (*Sialia mexicana*)	C	U, sr, B	7,1a,14,13a

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Mountain bluebird (*Sialia currucoides*)	B,C,E	FC, wr	7,1a,14,13a
Townsend's solitaire (*Myadestes townsendi*)	C,F	U, wr	7,13a,1a
Blue-gray gnatcatcher (*Polioptila caerules*)	C	FC, ar, B	7
Golden-crowned kinglet (*Regulus satrapa*)	C*	U, m	7,2a
Ruby-crowned kinglet (*Regulus calendula*)	C*	C, wr	7,1a,2a
Water pipit (*Anthus spinoletta*)	B,C,D	FC, wr	7,2a,14,5a,4
Bohemian waxwing (*Bombycilla garrulus*)	C	R, m	1a,2a,7
Cedar waxwing (*Bombycilla cedorum*)	C	U, wr	1a,2a,7,5a
Phainopepla (*Phainopepla nitens*)	F	R, yl, B	7,1a,14
Northern shrike (*Lanius excubitor*)	D,E,F,G,I	R, wr	7,15a,16a
Loggerhead shrike (*Lanius ludovicianus*)	D,E,F,G,I	FC, yl, B	7,15a,16a
Starling (*Sturnus vulgarus*)	A,B,D,E,G,I	C, yl, B	7,1a,4,5a
Bell's vireo (*Vireo bellii*)	C	R, m	7,14,11a
Gray vireo (*Vireo vicinior*)	C	R, m	7,11a,14
Solitary vireo (*Vireo solitarius*)	C*	U, m	7,11a,1a,14
Warbling vireo (*Vireo gilvus*)	C	C, sr, B	7,11a,1a,14
Black and white warbler (*Mniotilta varia*)	C	R, m	7,14,1a
Orange-crowned warbler (*Vermivora celata*)	C	FC, m	7,14,1a
Nashville warbler (*Vermivora ruficapilla*)	C	U, m	7,14,1a
Virginia's warbler (*Vermivora virginiae*)	C*,F	R, sr	7,14,1a
Yellow warbler (*Dendroica petechia*)	C	C, sr, B	7,14,1a
Magnolia warbler (*Dendroica magnolia*)	C	A, m	7,1a,14
Yellow-rumped warbler (*Dendroica cŏronata*)	C	C, yl, B	7,la,14
Audobon's warbler (*Dendroica audobonii*)	C,F	FC, m	7,1a,14
Townsend's warbler (*Dendroica townsendi*)	C	U, m	7,14
Black-throated gray warbler (*Dendroica nigrescens*)	C*	U, m	7,14
Black-throated blue warbler (*Dendroica caerulescens*)	C*	A, m	7,14
Black-throated green warbler (*Dendroica virens*)	C*	A, m	7,14
Golden-winged warbler (*vermivora chrysoptera*)	C	A, m	7,14,1a
Blue-winged warbler (*Vermivora pinus*)	C*	A, m	7,14,1a
Hermit warbler (*Dendroica occidentalis*)	C	U, m	7,1a,14
Blackpoll warbler (*Dendroica striata*)	C*	R, m	7,14,1a
Ovenbird (*Seirus aurocapillus*)	B	A, m	7,14

BIRDS (Continued)	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
Northern waterthrush (*Seirus noveboracensis*)	B	R, m	7,14
Common yellowthroat (*Geothlypis trichas*)	B,C	U, m	7,14
Yellow-breasted chat (*Icteria virens*)	C	FC, sr, B	7,1a,2a,14
MacGillivary's warbler (*Opornis tolmiei*)	B,C	U, sr, B	7,14
Wilson's warbler (*Wilsonia pusilia*)	B,C	U, m	7,14
American redstart (*Setophaga picta*)	C	R, m	7,14
House (English) sparrow (*Passer domesticus*)	C,I	C, yl, B	2a,5a,4,7
Western meadowlark (*Sturnella neglecta*)	D, E	C, yl, B	7,5a,2a,4
Yellow-headed blackbird (*Xanthrocephalus xanthrocephalus*)	B,C,I	C, sr, B	7,5a,2a,4
Red-winged blackbird (*Agelaius phoeniceus*)	B,C,I	C, yl, B	2a,7,5a,13a,11a,12,4,14
Brewer's blackbird (*Euphagus cyanocephalus*)	C,G,I	C, yl, B	7,2a,4,1a
Brown-beaded cowbird (*Molothrus ater*)	C,E,G	C, yl, B	5a,7,2a,4,14
Scott's oriole (*Icterus parisorum*)	C,D,E	U, m	7,1a
Northern oriole (*Icterus galbula*)	C	A, m	7,1a
Bullock's oriole (*Icterus galbula bullockii*)	C	U, sr	7,1a
Western tanager (*Piranga ludoviciana*)	C*	U, m	7,1a
Rose-breasted grosbeak (*Pheucticus ludovicianus*)	C*	A, m	1a,2a,7,14,4
Black-headed grosbeak (*Pheucticus melanocephalus*)	C	FC, sr	1a,2a,4,7,14
Blue grosbeak (*Guiraca caerula*)	C	U, sr	1a,2a,4,7,14
Indigo bunting (*Passerina cyanea*)	C	A, m	7,5a,2a
Lazuli bunting (*Passerina amoena*)	C,E,F	FC, m	7,4,5a,2a
Evening grosbeak (*Hesperiphona vespertina*)	C*	R, m	1a,2a,7,14
Purple finch (*Carpodacus purpureus*)	C	FC, m	1a,2a,7
Cassin's finch (*Carpodacus cassinii*)	C*	U, wr	2a,1a,7
House finch (*Carpodacus mexicanus*)	C,G,I	FC, yl, B	2a,1a,7
Pine grosbeak (*Pinicola enucleator*)	C*	R, wr	1a,7,2a
Gray-crowned rosy finch (*Leucosticite tephrocotis*)	C*	U, m	2a,1a,4,5a,7,14
Pine siskin (*Spinus pinus*)	C*	R, m	2a,1a,7,14
American goldfinch (*Spinus tristis*)	C,I	FC, yl, B	2a,1a,7
Lesser goldfinch (*Spinus psaltria*)	C,I	U, wr	2a,1a,7
Green-tailed towhee (*Chlorua chlorua*)	C,F	U, m	7,2a,1a
Rufous-sided towhee (*Pipilo erythrophthalmus*)	C	FC, yl, B	2a,1a,7
Savannah sparrow (*Passerculus sandwichensis*)	D,E,G	c, YL, B	2a,4,5a,7,14,13a
Grasshopper sparrow (*Ammodramus savannarum*)	D,G	U, sr, B	2a,7,14,11a,4
Vesper sparrow (*Pooecetes gramineus*)	D,E,F,G	C, yl, B	2a,7,4,5a,14
Lark sparrow (*Chondestes grammacus*)	D,E,F,G	U, sr	2a,4,7,14
Black-throated sparrow (*Amphispiza pilineata*)	E,F	C, sr	2a,7,4,5a,14

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
BIRDS (Continued)			
Sage sparrow (*Amphispiza belli*)	E,F	C, yl, B	2a,7,5a,4,14
Dark-eyed junco (*junco hyemalis*)	C,I	C, wr	2a.5a,7,14
Oregon junco (*Junco oreganus*)	C,G,I	FC, yl, B	2a,7,5a,4,14
Chipping sparrow (*Spizella passerina*)			
Brewer's sparrow (*Spizella breweri*)	F	C, sr	2a,7,14,5a
Black-chinned sparrow (*Spizella atrogularis*)	F	R, sr	2a,5a,4,7,1a,14
Harris' sparrow (*Zonotrichia querula*)	E,F	U, wr	2a,5a,7,14
White-crowned sparrow (*Zonotrichia leucophrys*)	B,C,D,E,G	C, yl, B	2a,7,4,5a,14
Golden-crowned sparrow (*Zonotrichia tricapilla*)	C	U, m	2a,5a.7,14,1a
White-throated sparrow (*Zonotrichia aloicollis*)	C	R, wr	2a,5a,7,1a,14
Fox sparrow (*Passerella iliaca*)	B,C	U, sr	2a,1a,4,7,5a,14
Lincoln's sparrow (*Melospiza lincolnii*)	B,C	U, yl, B	2a,5a,4,7,14
Song sparrow (*Melospiza melodia*)	B,C,I	C, yl, B	2a,5a,4,7,1a,14
Lapland longspur (*Calcarius lapponicus*)	D,G	R, wr	5a,2a,7,4
MAMMALS			
Marsupialia			
Opossum (*Didelphis marsupialis*)	C	R, N, yl	1a,2,15a,16c,7,15c
Insectivora			
Inyo shrew (*Sorex tenellus*)	C*	R, yl, B	7,6,14,13a,11,2
Vagrant shrew (*Sorex vagrans*)	C	C, yl, B	7,6,14,13a,11,2
Northern water shrew (*Sorex palustris*)	A,B	FC, yl, B	12,11,6,7
California mole (*Scapanus latimus*)	C,D,E,F,G	C, yl, B	13a,7,2b
Chiroptera			
Little brown myotis bat (*Myotis lucifugus*)	C,D	C,yl,N,H,B	7,6
Fringed myotis (*Myotis thysanodes*)	C,D,F	C,yl,N,H,B	7,6
Long-eared myotis (*Myotis evitis*)	C,D,F	C,yl,N,H,B	7,6
California myotis (*Myotis californicus*)	C,D,F	C,yl,N,H,B	7,6
Yuma myotis (*Myotis yumanensis*)	D,E,F	C,yl,N,H,B	7,6
Long-legged myotis (*Myotis volans*)	C,D,E,F	C,yl,N,H,B	7,6
Small-footed myotis (*Myotis subulatus*)	C,D,E,F	FC,yl,N,H,B	7,6
Silver-haired bat (*Iasionycterius noctivagans*)	C,F*	U, m, N	7,6
Western pipistrel (*Pipistrellus hesperus*)	C,F	C,yl,N,H,B	7,6
Red bat (*Lasiurus borealis*)	C,D	C, M, N	7,6

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
MAMMALS (Continued)			
Big brown bat (*Eptesicus fuscus*)	C,F	C,yl,N,H,B	7,6
Hoary bat (*Lasiurus cinereus*)	C*	C, m, N	7,6
Spotted bat (*Euderma maculata*)	C,F*	R,yl,N,H,B	7,6
Western big-eared bat (*Plecotus townsendi*)	F	C,yl,N,H,B	7,6
Pallid bat (*Antrozous pallidus*)	C,D,F	C, m, N	7,6
Mexican freetail bat (*Tadarida brasiliensis*)	C,D,F	C, m, N	7,6
Carnivora			
Black bear (*Ursus americanus*)	C*	U,yl,H,B	1a,2b,7,15a,16c,15c
Raccoon (*Procyon lotor*)	B,C	C,yl,N,B	10,12,1a,6,7
Ringtail cat (*Bassariscus astutus*)	C	R,yl,N,B	15a,7,16a,1a,9
Long-tailed weasel (*Mustela frenata*)	C	U,yl,N,B	15a,16a+c,10,12,8
Mink (*Mustela vison*)	C*	R,yl,N,B	15a,16a+c,10,12,8
Badger (*Taxidea taxus*)	E,F	FC,yl,N,B	15a,9,7
Striped skunk (*Mephitis mephitis*)	C,D,E,G	C,yl,N,B	16a,16c,7,1a,15c,9
Spotted skunk (*Spilogale putorius*)	C,G	U,yl,N,B	15a,16a+c,7,15c,9
Coyote (*Canis latrans*)	C,D,E,F,G,H	C, yl, B	15a+b,16a+b,1a,8,2
Kit fox (*Vulpes macrotis*)	E,F	R,yl,N,B	15a,7,16a,9,10,1a
Gray fox (*Urocyon cinereoargentous*)	C,F*	U,yl,N,B	15a,7,1a,16a
Mountain lion (*Felis concolor*)	C,F*	U, wr	Deer,15a+b,16a
Bobcat (*Lynx rufus*)	C,F	FC,yl,N,B	15a+b,16a,8
Rodentia			
Whitetail antelope squirrel (*Ammospermophilus leucurus*)	E,F	C, yl, B	2a,1a,5a,7
Townsend ground squirrel (*Spermophilus townsendi*)	F	U,yl,H,B	2a,1a,5a
California ground squirrel (*Spermophilus beechyi*)	C,E,F,G	C,yl,H,B	2a,1a,5,7,16a+c
Least chipmunk (*Eutamias minimus*)	C,F*	C,yl,H,B	2a,1a,5,7
Merriam chipmunk-(*Eutamias merriami*)	C*	FC,yl,H,B	2a,1a,5,7
Valley pocket gopher (*Thomomys bottae*)	C,D,G	C, yl, B	1b,2b,5
Little pocket mouse (*Perognathus longimembris*)	C,F	C,yl,N,H,B	2a,1a,5a
Longtail pocket mouse (*Perognathus formosus*)	E,F	C,yl,N,H,B	2a,1a,5a,4
Great Basin pocket mouse (*Perognathus narvus*)	C,E,I	C,yl,N,H,B	2a,1a,5a,4
Canyon mouse (*Peromyscus crinitus*)	F	C,yl,N,B	2a,1a,7
Brush mouse (*Peromyscus boylei*)	C,E,F	C,yl,N,B	1a,2a,7
Pinyon mouse (*Peromyscus truei*)	C,F*	C,ylj N,B	1a,2a
Deer mouse (*Peromyscus maniculatus*)	B,C,D,E,F,G	C,yl,N,B	2a,1a,7
Western harvest mouse (*Reithrodontomys megalotis*)	B,C,D,E,F	C,yl,N,B	2a,1a,5a,7
Southern graoshopper mouse (*Onychomys torridus*)	E,F	C,yl,N,B	7,9,15a
Ord kangaroo rat (*Dipodomys ordi*)	E,F	C,yl,N,B	2a,5a,1a

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
MAMMALS (Continued)			
Panamint kangaroo rat (*Dipodomys panamintinus*)	E,F	FC,yl,N,B	2,5,1a
Merriam kangaroo rat (*Dipodomys merriami*)	E,F	FC,yl,N,B	2,5,1a
Great Basin kangaroo rat (*Dipodomys microps*)	C,E,F	FC,yl,N,B	2,5,1a
Desert kangaroo rat (*Dipodomys deserti*)	C,E,F	U,yl,N,B	2,5,1a
Pale kangaroo mouse (*Microdipidops pallidus*)	E,F	U,yl,N,B	2a,5,1a
Sagebrush vole (*Lagurus aurtatus*)	F	C,yl,B	1b,2b,5
Meadow vole (*Microtos californicus*)	B,C,D	C,yl,B	5,2,3,1a+b
Mountain vole (*Microtos montanus*)	C*	FC,yl,B	1a+b,2a+b,5
Long-tailed vole (*Microtos longicaudus*)	C,F*	FC,YL,B	5,1b,2b
House mouse (*Mus musculus*)	C,I	C,yl,B	Anything edible
Desert woodrat (*Neotome lipida*)	B,C,E,F	FC,yl,B	1a,2a+b
Bushy-tail woodrat (*Neotoma cinerea*)	B,C,F	FC,yl,B	1b,2b,5
Dusky-footed woodrat (*Neotoma fuscipes*)	B,C,F	R,yl,N,B	1a+b,2a+b,5
Beaver (*Castor canadens*)	C	FC,yl,N,B	1b,3b
Porcupine (*Erethizon dorsatum*)	C	C,yl,N,B	1a+b,2b,3b
Lagomorpha			
Blacktail jackrabbit (*Lepus californicus*)	C,D,E,F,G	C,yl,B	2b,5,1b,4
Desert cottontail (*Sylvilagus audoboni*)	C,D,E,F,G	C,yl,B	2b,5,1b,4
Whitetail jackrabbit (*Lepus townsendii*)	C,F*	A,wr	5,2b,1b
Artiodactyla			
Tule elk (*Cervus nannodes*)	B,C,D,E,F,G	C,yl,B	lb,2b,4,3b,5
Mule deer (*Odocoileus hemionus*)	B,C,E,F	FC,yl,B	1b,2b,5
Desert bighorn sheep (*Ovis canadensis canadensis*)	C,F*	A,wr	5,2b,1b
California bighorn sheep (*Ovis canadensis californiana*)	C,F*	U,wr	5,2b,1b
REPTILES			
Gekkonidae			
Desert banded gecko (*Coleonyx variegatus variegatus*)	F	U,yl,N,H,B	7,14
Iguanidae			
Desert iguana (*Dipsosaurus dorsalis dorsalis*)	F	R,yl,H,B	2b,1a+b,7,15c
Chuckwalla (*Sauromalus obesus*)	F	U,yl,H,B	2b,1a+b
Collared lizard (*Crotaphytus collaris*)	F	FC,yl,H,B	7,14,9,2b,1a+b
Leopard lizard (*Crotaphytus wislizenii*)	F	FC,yl,H,B	7,14,9,2b,1a+b

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
REPTILES (Continued)			
Barred spiny lizard (*Sceloporus magister transversus*)	C,E,F,G	C,yl,H,B	7,14,2b,1a+b
Great Basin fence lizard (*Sceloporus occidentalis*)	C,E,F	C,yl,H,B	7,14,2b,1a+b
Sagebrush lizard (*Sceloporus graciosus graciosus*)	C,D,E,F	C,yl,H,B	7,14,9,2b,1a+b
Northern side-blotched lizard (*Uta stansburiana stansburiana*)	C,D,E,F	C,yl,H,B	7,14
Zebra-tailed lizard (*Callisaurus draconoides*)	E,F	C,yl,H,B	7,14,9,2b,1a+b
Southern desert horned lizard (*Phrynosoma platyrhinos calidiarum*)	E,F	C,yl,H,B	7,14,2b,1a+b,9
Xantusiidae			
Desert night lizard (*Xantusia vigilis vigilis*)	F	R,yl,H,B	7,14
Scincidae			
Gilbert's skink (*Eumeces gilberti*)	C,F	R,yl,H,B	7,14
Teiidae			
Great Basin whiptail (*Cnemidophorus tigris tigris*)	C,D,E,F	C,yl,H,B	7,14,9
Anquidae			
Sierra alligator lizard (*Gerrhonotus coeruleus palmeri*)	C,F	R,yl,H,B	7,14,11a
Boidae			
Pacific rubber boa (*Charina bottae bottae*)	C	R,yl,H,B	15a,9
Colubridae			
Western yellow-bellied racer (*Coluber constrictor mormon*)	C	R,yl,H,B	9,15a,10
Red racer (*Masticophis flagellum piceus*)	C,D,E,F,G	C,yl,H,B	9,15a,10,16a,b,c,15c
Striped whipsnake (*Masticophis taeniatus*)	C,D,F	FC,yl,H,B	9,15a,10,16,7,15c
Mojave patch-nosed snake (*Salvadors hexalepis mojavensis*)	D,E,F	R,yl,H,B	9,15a
Great Basin gopher snake (*Pituophis melanoleucus deserticola*)	C,D,E,F,G	C,yl,H,B	15a+b,16,9
California kingsnake (*Lamproperlis gentulus californiae*)	B,C,D,E,F,G	FC,yl,H,B	9,16c,15a,10,16aFb

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
REPTILES (Continued)			
Western long-nosed snake (*Rhinocheilus lecontei lecontei*)	D,E,F	U,yl,N,H,B	9,15a,7
Sierra garter snake (*Thamnophis couchi couchi*)	C,F*	R,yl,H,B	8,10,13a,7,6,15a,16
Mountain garter snake (*Thamnophis elegans elegans*)	C*	U,yl,H,B	8,10,13a,7,6,15a,16
California red-sided garter snake (*Thamnophis sirtalis infernalis*)	B,C,G	U,yl,H,B	8,10,13a,7,6,15a,16
Western ground snake (*Sonora semiannulata*)	F	R,yl,N,H,B	7,14
Desert night snake (*Hypsiglona torauata dleserticola*)	C,E,F	R,yl,N,H,B	9,10,7,6
Viperidae			
Mojave desert sidewinder (*Crotalus cerastes cerastes*)	B,F	FC,yl,N,H,B	15a,9,16a+b
Great Basin rattlesnake (*Crotalus viridus lutosus*)	C,E,F	U,yl,H,B	15a,16a+b,9
AMPHIBIANS			
Pelobatidae			
Great Basin spadefoot toad (*Scaphiopus intermontanus*)	B,C,D,E	FC,yl,N,H,B	7
Bufonidae			
California toad (*Bufo boreas halophilus*)	B,C	R,yl,N,H,B	7,12,11a,14
Hylidae			
Pacific treefrog (*Hyla regalia*)	B,C	R,yl,H,B	7,14,11a
Ranidae			
Mountain yellow-legged frog (*Rana muscosa*)	C*	R,yl,H,B	7,11a
Leopard frog (*Rana pipiens*)	A,B,C,D	U,yl,H,B	7,14,11a
Bullfrog (*Rana catesbeiana*)	A,B	C,yl,H,B	7,8,10,9,16a,15a
FISHES			
Salmonidae			
Rainbow trout (*Salmo gairdneri*)			
Brown trout (*Salmo trutta*)			

	Habitat Types	Abundance & Occurrence	Foods (in decreasing order of importance)
FISHES (Continued)			
Catostomidae			
Owens sucker (*catostomus fumeiventris*)			
Cyprinidae			
Carp (*Cyprinus carpio*)			
Owens dace (*Rhinichthys osculus spp.*)			
Owens Tui Chub (*Gila bicolor snyderi*)			
Ictaluridae			
Channel catfish (*Ictalurus punctatus*)			
Brown bullhead (*Ictalurus nebulosus*)			
Cyprinodontidae			
Owens pupfish (*Cyprinodon radiosus*)			
Poeciliidae			
Mosquito fish (*Gambusia affinis*)			
Centrarchidae			
Largemouth bass (*Micropterus salmoides*)			
Smallmouth bass (*Micropterus dolomieui*)			
Green sunfish (*Lepomis cyanellus*)			
Bluegill (*Lepomis macrochirus*)			
Redear sunfish (*Lepomis microlophus*)			
Crappie (*Pomoxis nigromaculatus*)			

Class Insecta

Order Orthoptera (Grasshoppers, crickets, etc.)

Family Acrididae
sub-family Cyrtacanthacridinae
(Spur-throated grasshoppers)
sub-family Oedipodinae
(Band-winged grasshoppers)
sub-family Acridinae
(Slant-faced grasshoppers)

Family Tettigoniidae
sub-family Conocephalinae (Meadow grasshoppers)
Family Gryllidae
sub-family Nemobiinae (Ground crickets)

Order Thysanoptera (Thrips)
Family Phloeothripidae (Thrips)

Order Hemiptera (Bugs)
Family Anthocoridae (Flower bugs)
Family Phymatidae (Ambush bugs)
Family Tingidae (Lace bugs)
Family Coreidae (Leaf-footed bugs)
Family Pentatomidae (Stink bugs)

Order Homoptera (Cicadas, Aphids, etc.)
Family Cicadellidae (Cicadas)
Family Delphacidae (Planthoppers)
Family Aphididae (Aphids or Plant Lice)
Family Psyllidae (Jumping plant lice)

Order Coleoptera (Beetles)
Family Carabidae (Ground beetles)
Family Coccinellidae (Ladybugs)
Family Meloidae (Blister beetles)
Family Tenebrionidae (Darkling beetles)
Family Cerambycidae (Wood-boring beetles)
Family Chrysomelidae (Leaf beetles)
Family Bauchidae (Seed beetles)
Family Curculionidae (Snout beetles or weevils)

Order Hymenoptera - Continued
Family Vespidae (Vespid or mason wasps)
Family Pompilidae (Spider wasps)
Family Sphecidae (Thread-waisted and digger wasps)
Family Colletidae (Yellow-faced or plasterer bees)
Family Andrenidae (Mining bees)
Family Apidae (Social bees, honey bees)

Order Mecoptera (Scorpion flies)
Family Pieridae (Common scorpion flies)

Order Lepidoptera (Butterflies and moths)
Family Pieridae
(Whites, sulfurs, and orange-tips)
Family Lycaenidae (Gossamer-winged butterflies)
Family Noctuidae (Noctuid butterflies)
Family Gelechiidae (Common moths)

Order Diptera (Flies)
Family Chironomidae (Midges)
Family Simuliidae (Black flies)
Family Bibionidae (March flies)
Family Sciaridae (Fungus gnats or root gnats)
Family Asilidae (Robber flies)
Family Bombyliidae (Bee flies)
Family Dolichopodidae (Long-legged flies)
Family Syrphidae (Flower flies)
Family Conopidae (Thick-headed flies)
Family Tephritidae (Fruit flies)
Family Sepsidae (Black Scavenger flies)
Family Sphaeroceridae (Small dung flies)
Family Chloropidae (Fruit flies)
Family Trixoscelididae
Family Anthomyiidae
Family Muscidae (House flies, stable flies)
Family Calliphoridae (Blow flies)
Family Tachinidae (Tachinid flies)
Family Destridae (Bot flies)

Order Hymenoptera (Ants, Bees, Wasps)
Family Eupelmidae (Eupelmid insects)
Family Pteramalidae (Pteromalid insects)
Family Platygasteridae (Platygasterid insects)
Family Ceraphronidae (Ceraphronid insects)
Family Chrysididae (Cuckoo wasps)
Family Tiphiidae (Tiphiid wasps)
Family Mutillidae (Velvet ants)
Family Formicidae (Ants)

Order Plecoptera (Stoneflies)
Family Pteronarcidae (Giant stoneflies)
Family Nemouridae (Spring stoneflies)
Family Perlidae (Common stoneflies)
Family Perlodidae

Class Arachnida

Order Araneida (Spiders)
- Family Salticidae (Jumping spiders)
- Family Zoropsidae
- Family Thomasidae (Crab spiders)
- Family Theridídae (Black widows)

Order Chelonethida (Pseudo-scorpions)

Order Scorpionida (Scorpions)

Order Phalengida (Daddy longlegs)

Order Acari (Ticks and mites)

Aquatic Invertebrates

Class Insecta

Order Ephimeroptera (Mayflies)
- Family Heptageniidae (Stream mayflies)
- Family Leptophlebiidae
- Family Ephemerellidae
- Family Tricorythidae
- Family Baetidae (Small mayflies)

Order Coleoptera (Beetles)
- Family Haliplidae (Crawling water beetles)
- Family Dytiscidae (Predaceous diving beetles)
- Family Hydrophilidae (Water scavenger beetles)
- Family Gyrinidae (Whirligig beetles)
- Family Staphylinidae (Rove beetles)
- Family Elmidae (Riffle beetles)
- Family Limnichidae (Marsh-loving beetles)
- Family Heteroceridae (Variegated mud-loving beetles)
- Family Curculionidae

Order Diptera (Flies)
- Family Tipulidae (Crane flies)
- Family Psychodidae (Sand flies)
- Family Cucicidae (Mosquitos)
- Family Simuliidae (Black flies)
- Family Chironomidae (Midges)

Order Odonata (Dragonflies and Damselflies)
- Family Coenagrionidae (Narrow-winged damselflies)
- Family Gomphidae (Chubtails)
- Family Libellulidae (Common skimmers)
- Family Aeshnidae (Darners)

Order Hemiptera (Bugs)
- Family Corixidae (Water boatmen)
- Family Notonectidae (Backswimmers)
- Family Naucoridae (Creeping water bugs)
- Family Belostomatidae (Giant water bugs)
- Family Gerridae (Water striders)
- Family Veliidae (Ripple bugs)
- Family Hebridae (Velvet water bugs)
- Family Lygaeidae (Cinch bugs)

Order Lepidoptera (Butterflies and Moths)
- Family Pyralidae (Pyralid moths)

Order Trichoptera (Caddisflies)
- Family Rhyacophilidae (Primitive caddisflies)
- Family Hydropsychidae (Net-spinning caddiesflies)
- Family Glossomatidae (Caddisflies)
- Family Hydroptilidae (Micro-caddisflies)
- Family Leptoceridae (Long-horned caddisflies)
- Family Brachycentridae
- Family Lepidostamatidae
- Family Limnephilidae (Northern caddisflies)

Phylum Mollusca (Mollusks)

Class Gastropoda (Snails)
- Order Pulmonata
  - Family Physidae
  - Family Lymnaeidae
  - Family Planorbidae
  - Family Ancylidae
- Order Ctenobranchiata
  - Family Amnicolidae

Class Pelecypoda (Clams)
- Order Heterodonta
  - Family Sphaeriidae

Phylum Arthropoda

Class Arachnida
- Order Acarina (Mites and ticks)

Family Heleidae (Biting midges)
Family Stratiomyidae (Soldier flies)
Family Tabanidae (Horseflies and deerflies)
Family Dolichopodidae (Long-legged flies)
Family Empididae (Dance flies)
Family Syrphidae (Flower flies)
Family Ephydridae (Shore flies)
Family Sciomyzidae (Marsh flies)

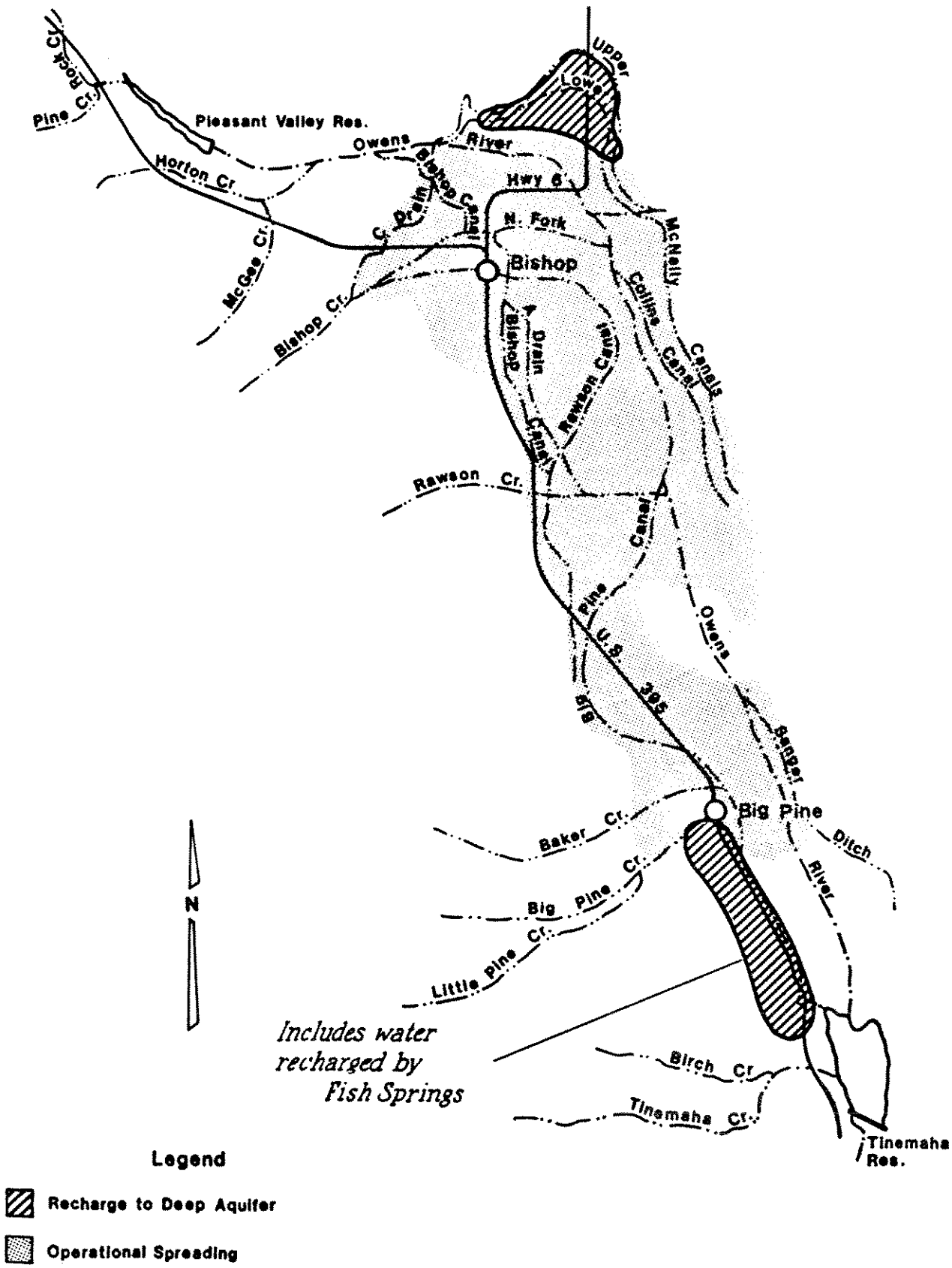
Phylum Platyhelminthes (Flat worms)
Class Turbellaria
Order Tricladida

Phylum Nematoda (Roundworms)

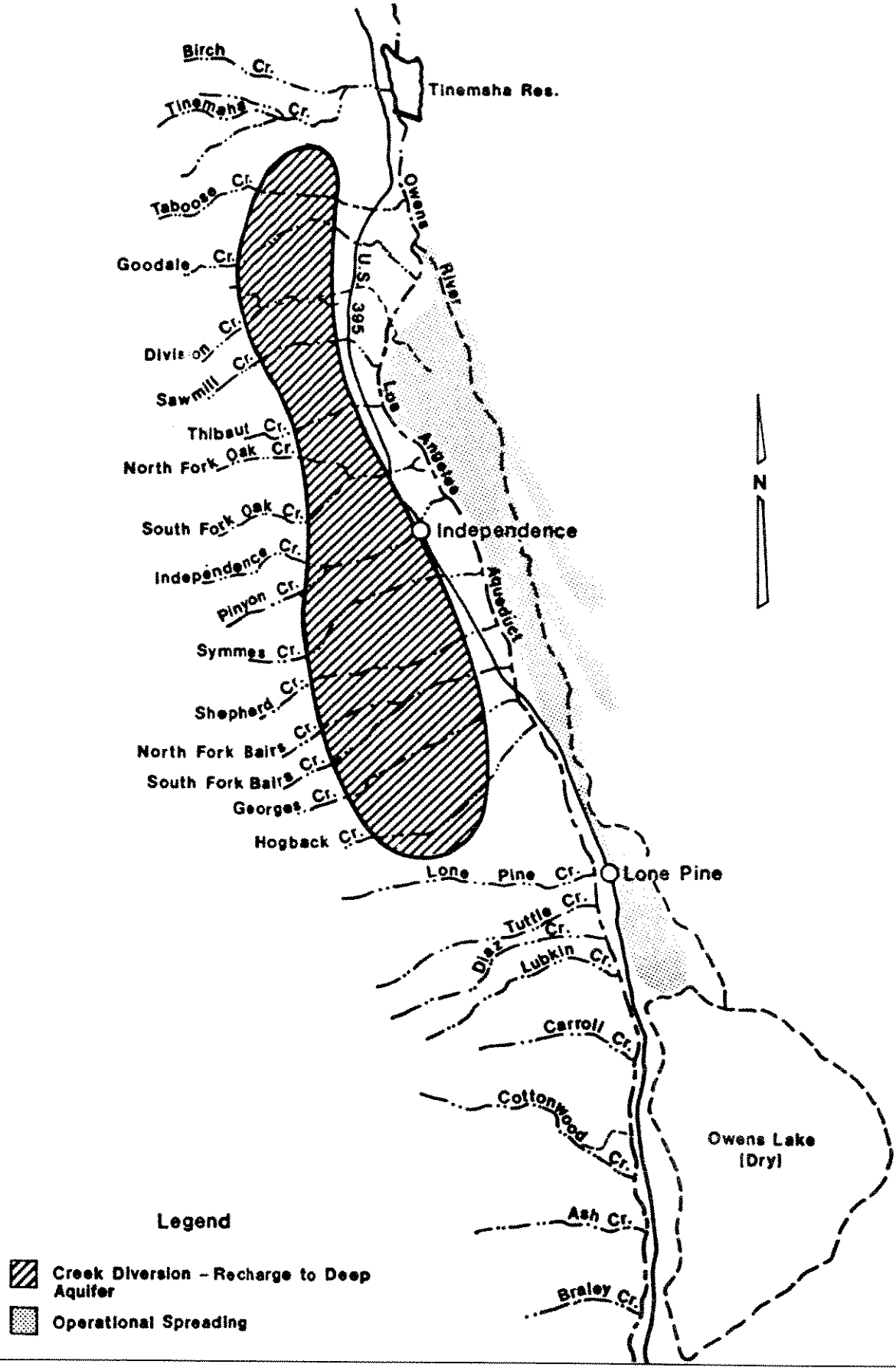
Phylum Annelida (Annelid worms)
Class Oligachaeta (Earthworms)
Order Plesiopora
Family Naididae
Class Hirudinea

Class Crustacea
Order Cladocera (Water fleas)
Family Daphnidae
Order Podocopa (Seed shrimps)
Order Eucopepoda (Copepods)
Order Amphipoda (Shrimps)
Family Gammaridae
Family Talitridae
Order Decapoda (Crayfish)
Family Asticidae

D. OWENS VALLEY SPREADING AREAS



BISHOP-BIG PINE AREAS SPREADING LOCATIONS

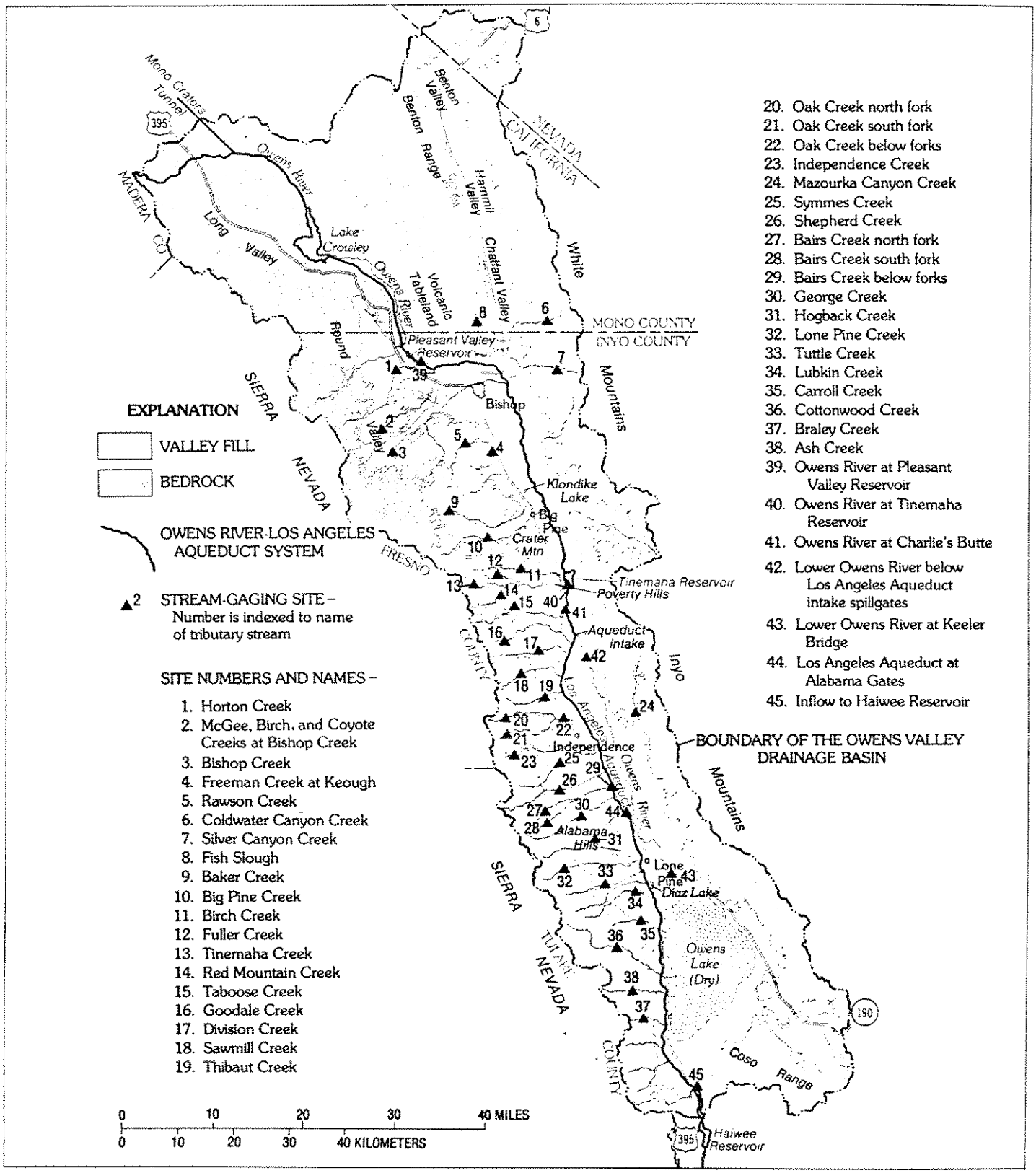


INDEPENDENCE AREA SPREADING LOCATIONS

E. WATER RESOURCES DATA

APPENDIX E1

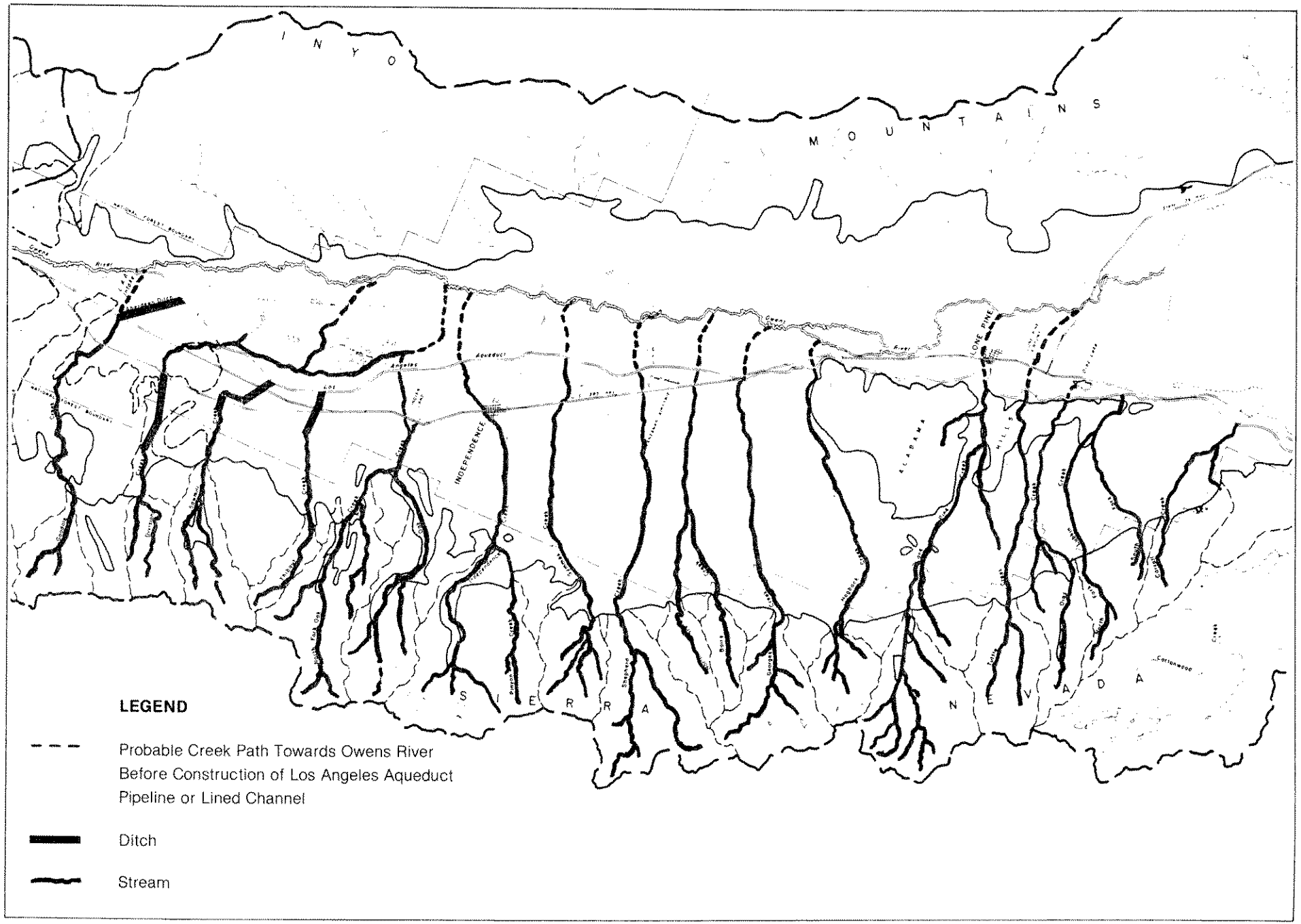
LOCATIONS OF STREAM GAGING STATIONS



OWENS RIVER-LOS ANGELES AQUEDUCT GAGING STATIONS ON TRIBUTARY STREAMS

APPENDIX E2

LOCATIONS OF DIVERTED STREAM SECTIONS



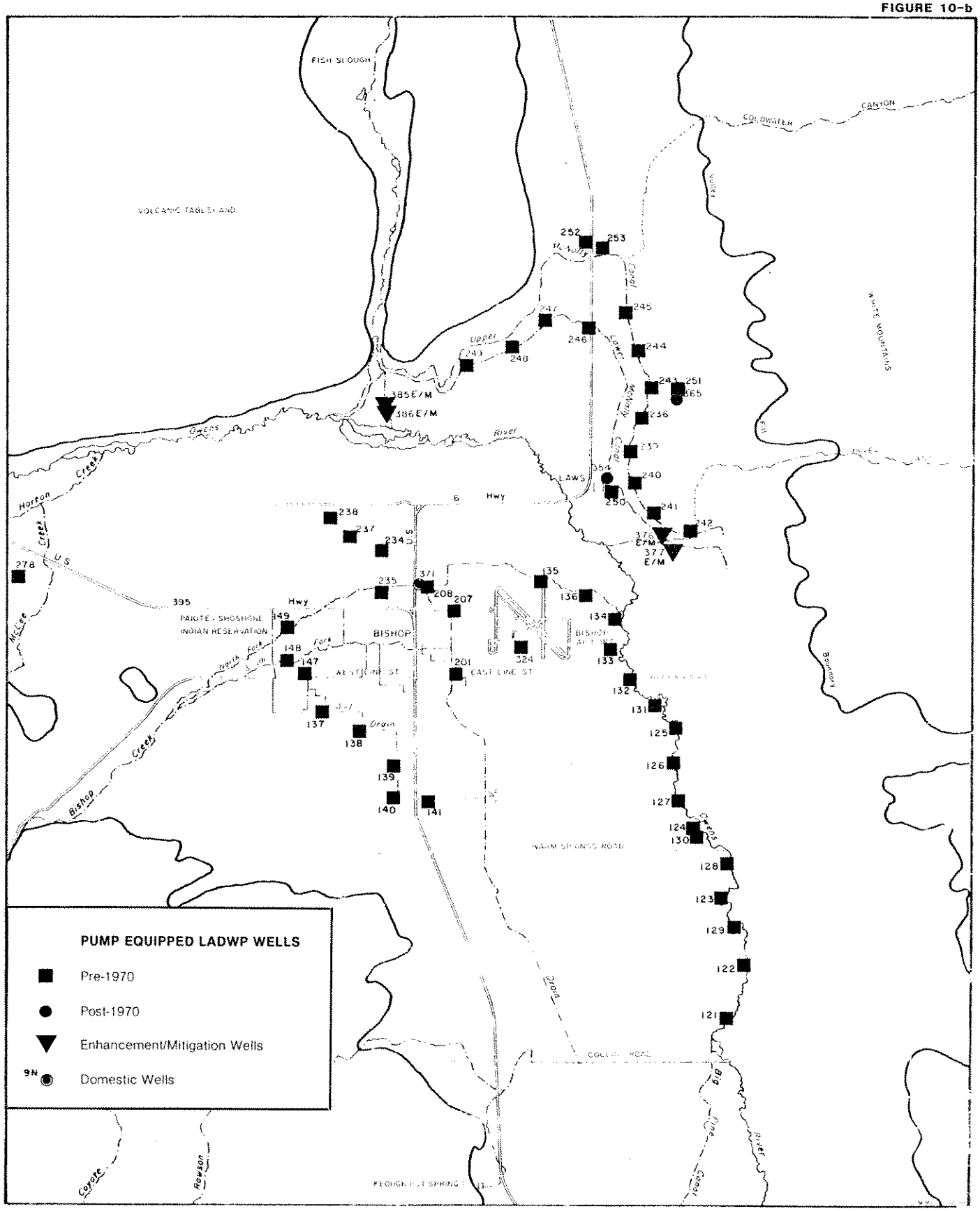
SOURCE: LADWP, AQUEDUCT DIVISION

LOCATIONS OF DIVERTED STREAM SECTIONS

APPENDIX E3

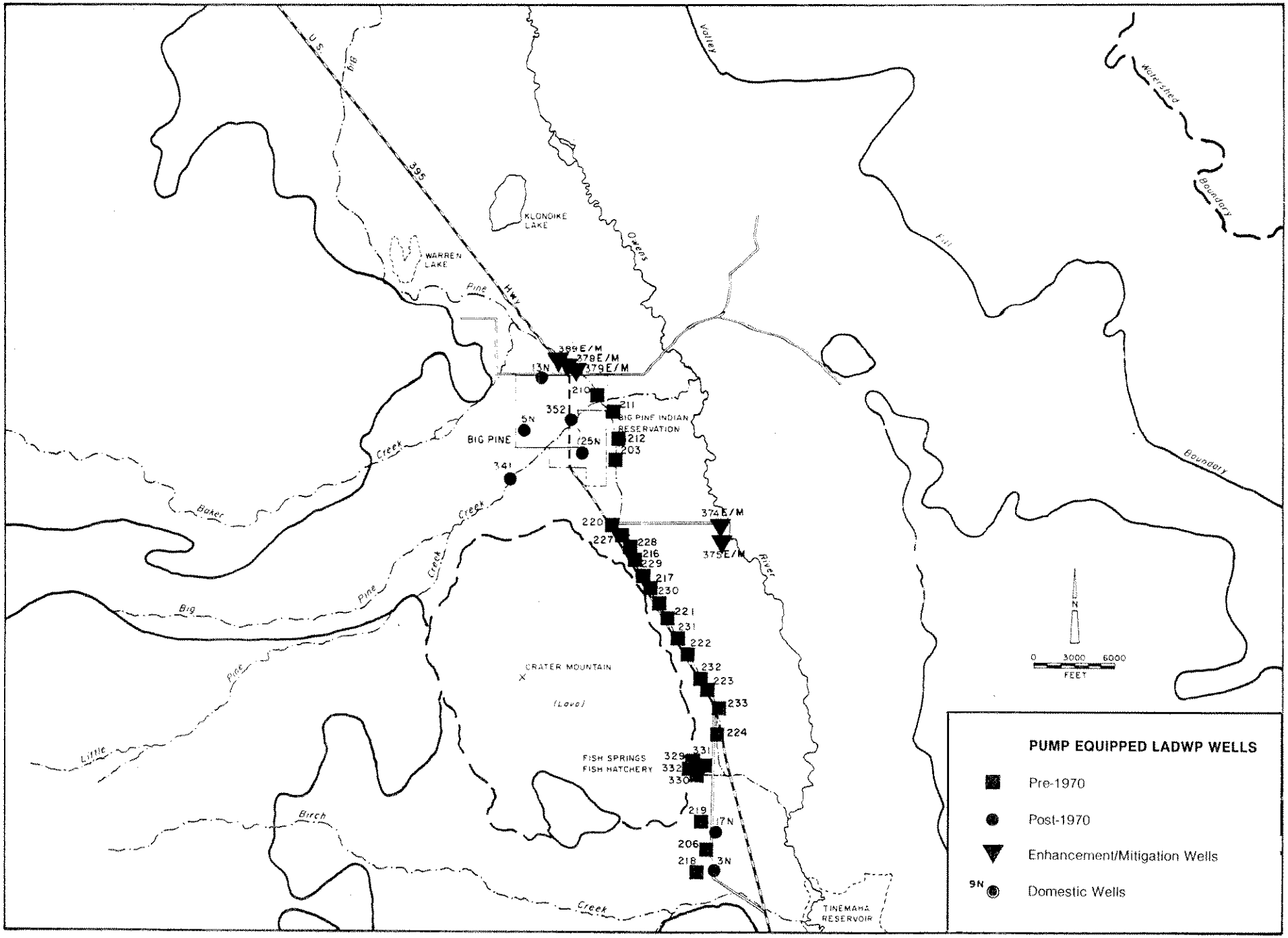
PRE- AND POST-1970 WELL LOCATIONS

FIGURE 10-b



PUMP EQUIPPED LADWP WELLS PRIOR TO 1970 & POST 1970
BISHOP CONE AND LAWS WELL FIELDS

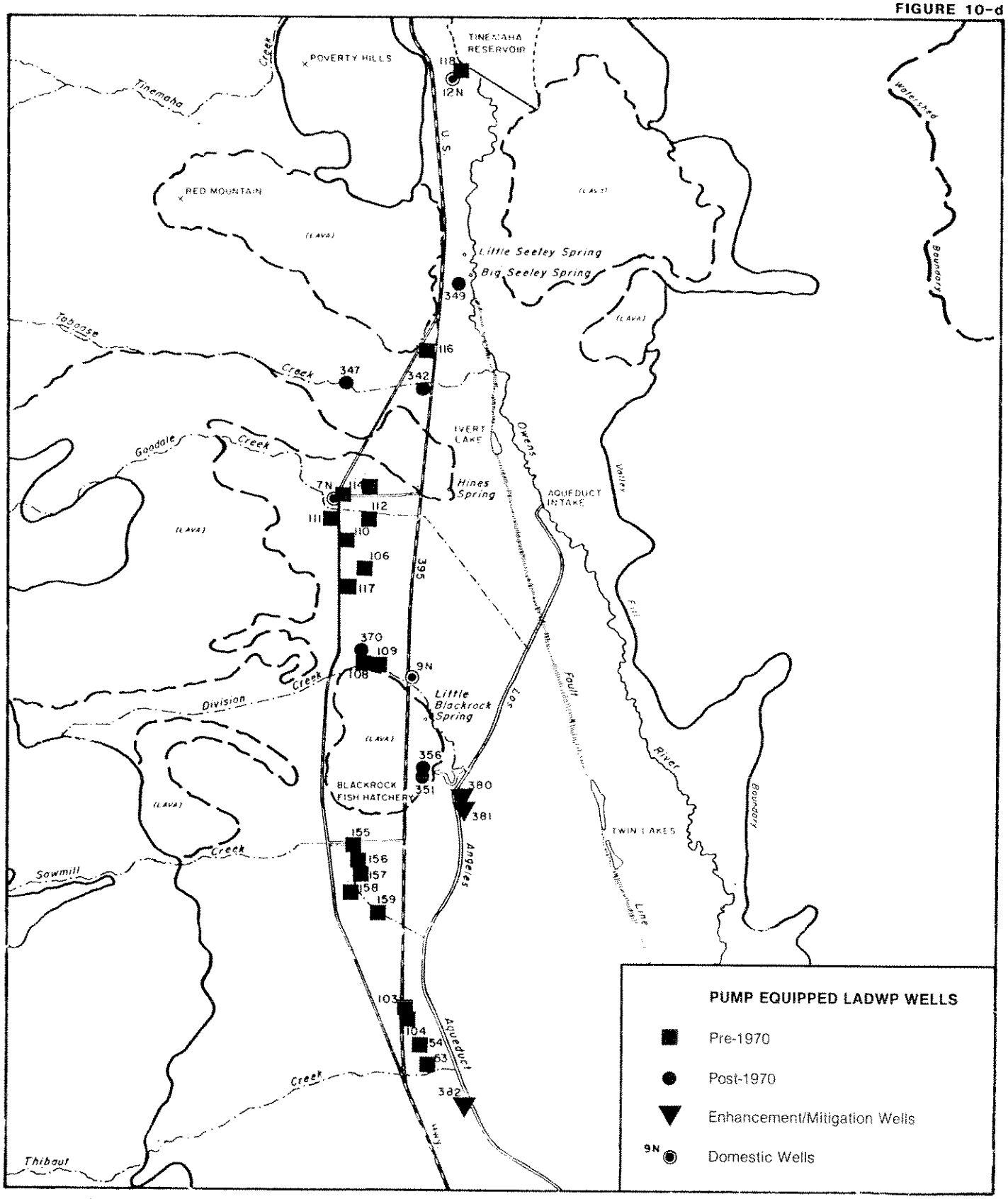
SOURCE: LADWP, AQUEDUCT DIVISION



SOURCE: LADWP, AQUEDUCT DIVISION

PUMP EQUIPPED LADWP WELLS PRIOR TO 1970 & POST 1970
BIG PINE WELL FIELD

FIGURE 10-d



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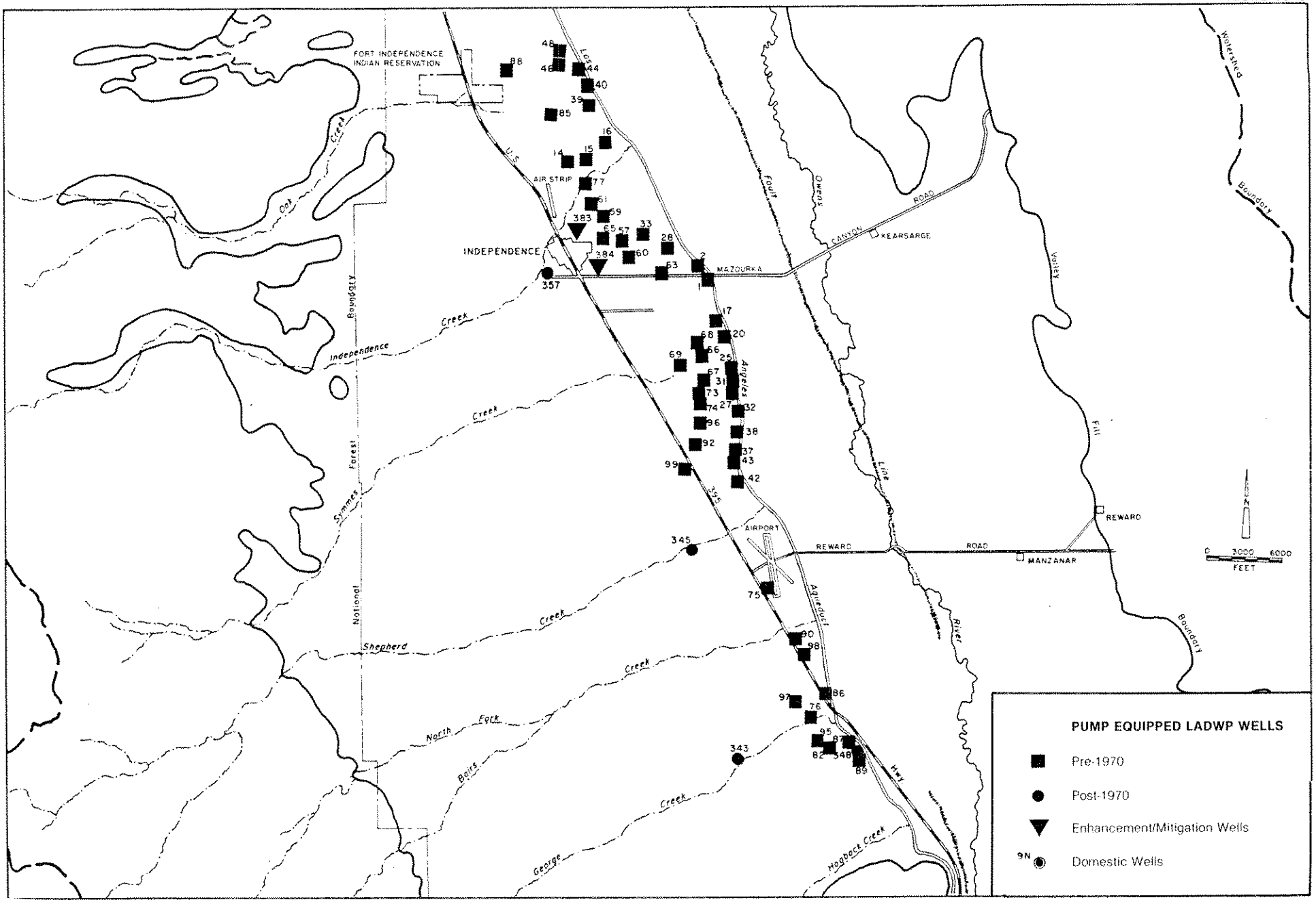
0 3000 6000

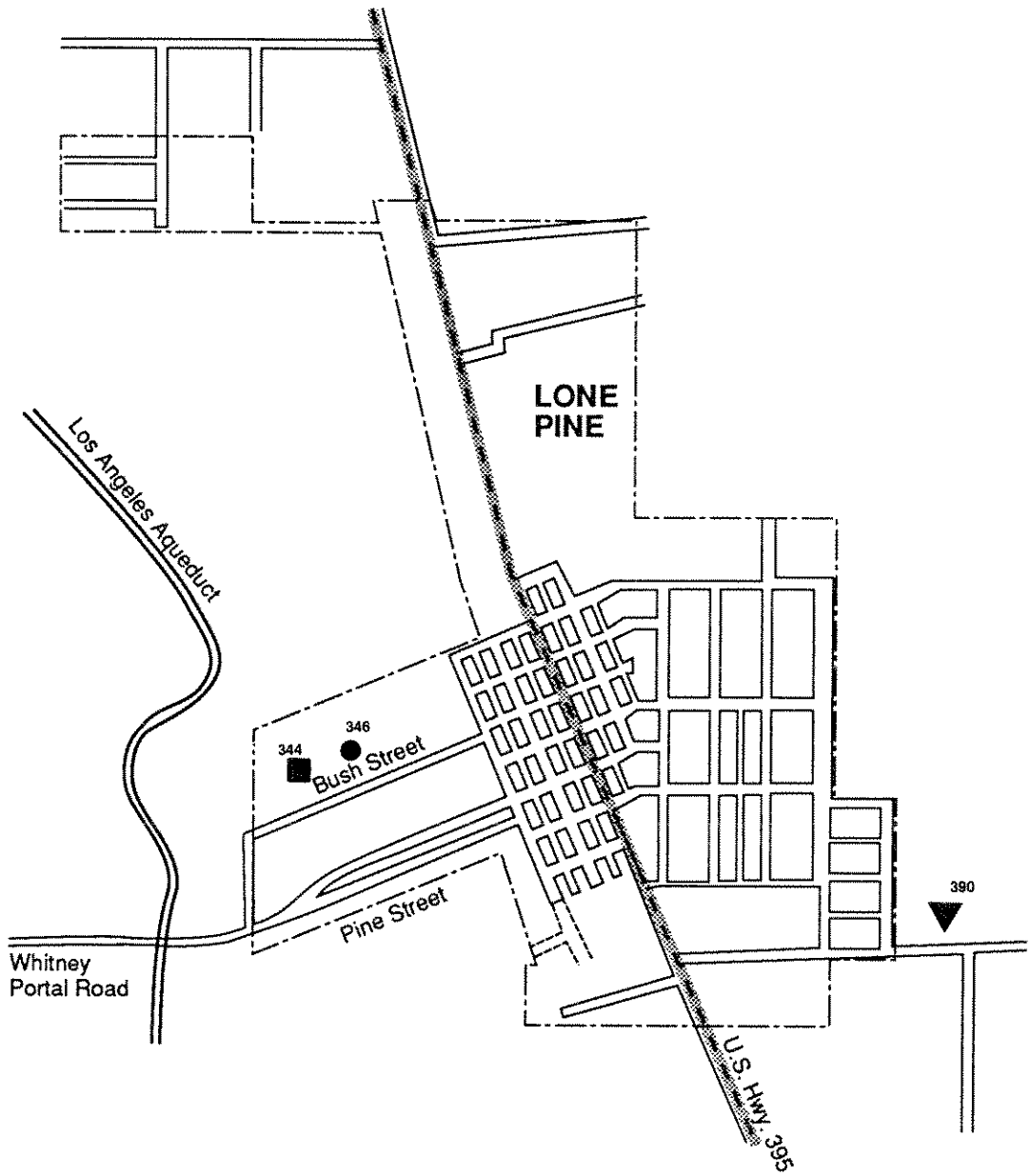
PUMP EQUIPPED LADWP WELLS PRIOR TO 1970 & POST 1970
TABOOSE-ABERDEEN AND THIBAUT-SAWMILL WELL FIELDS

SOURCE: LADWP, AQUEDUCT DIVISION



SOURCE: LADWP, AQUEDUCT DIVISION

PUMP EQUIPPED LADWP WELLS PRIOR TO 1970 & POST 1970
INDEPENDENCE-BAIRS-SYMMES WELL FIELDS



O W E N S V A L L E Y

PUMP EQUIPPED LADWP WELLS

- Pre-1970
- Post-1970
- Enhancement/Mitigation Wells
- 9N Domestic Wells

PUMP EQUIPPED LADWP WELLS PRIOR TO 1970 & POST 1970 LONE PINE WELL FIELD

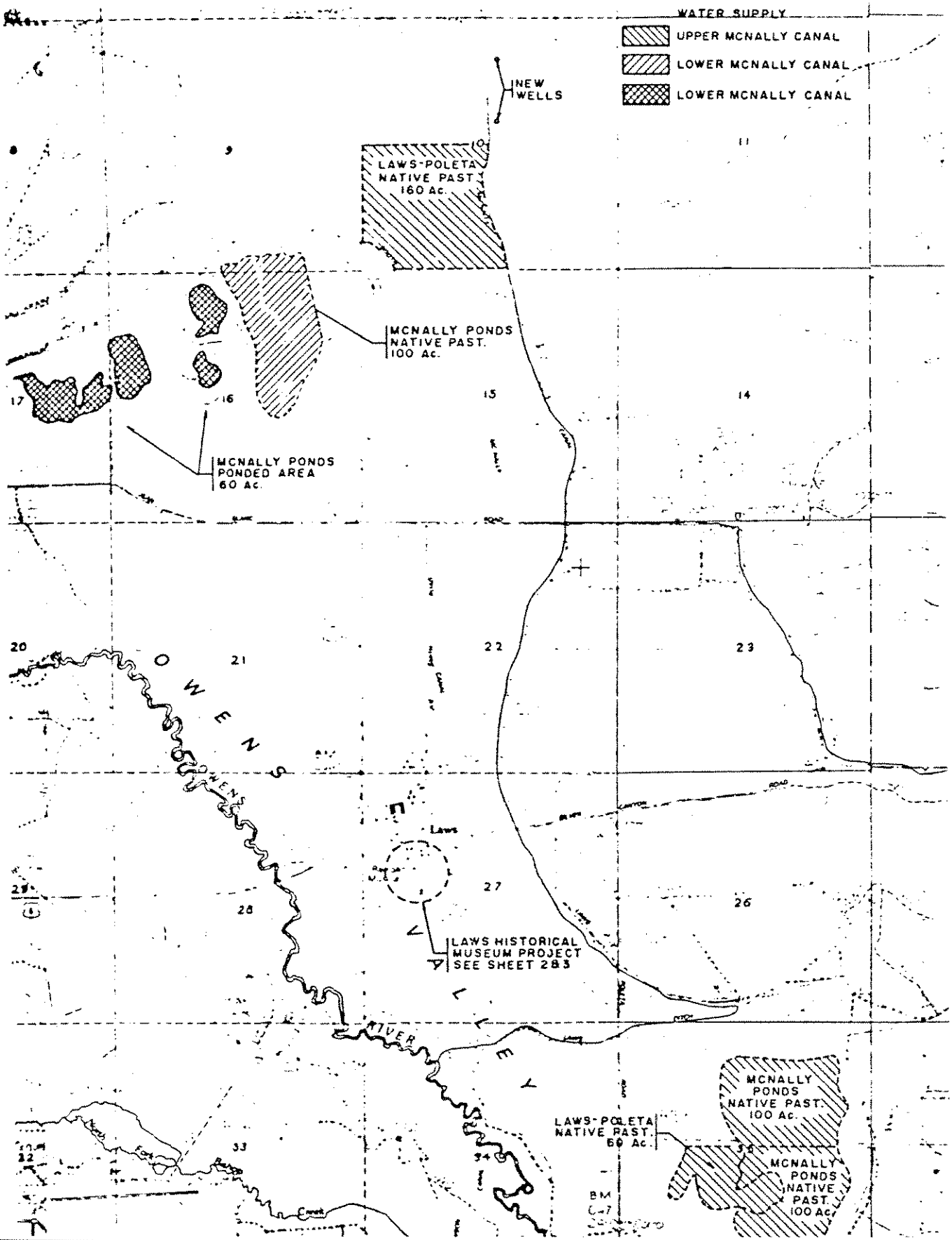
SOURCE: LADWP, AQUEDUCT DIVISION

FEET 0 2000 4000

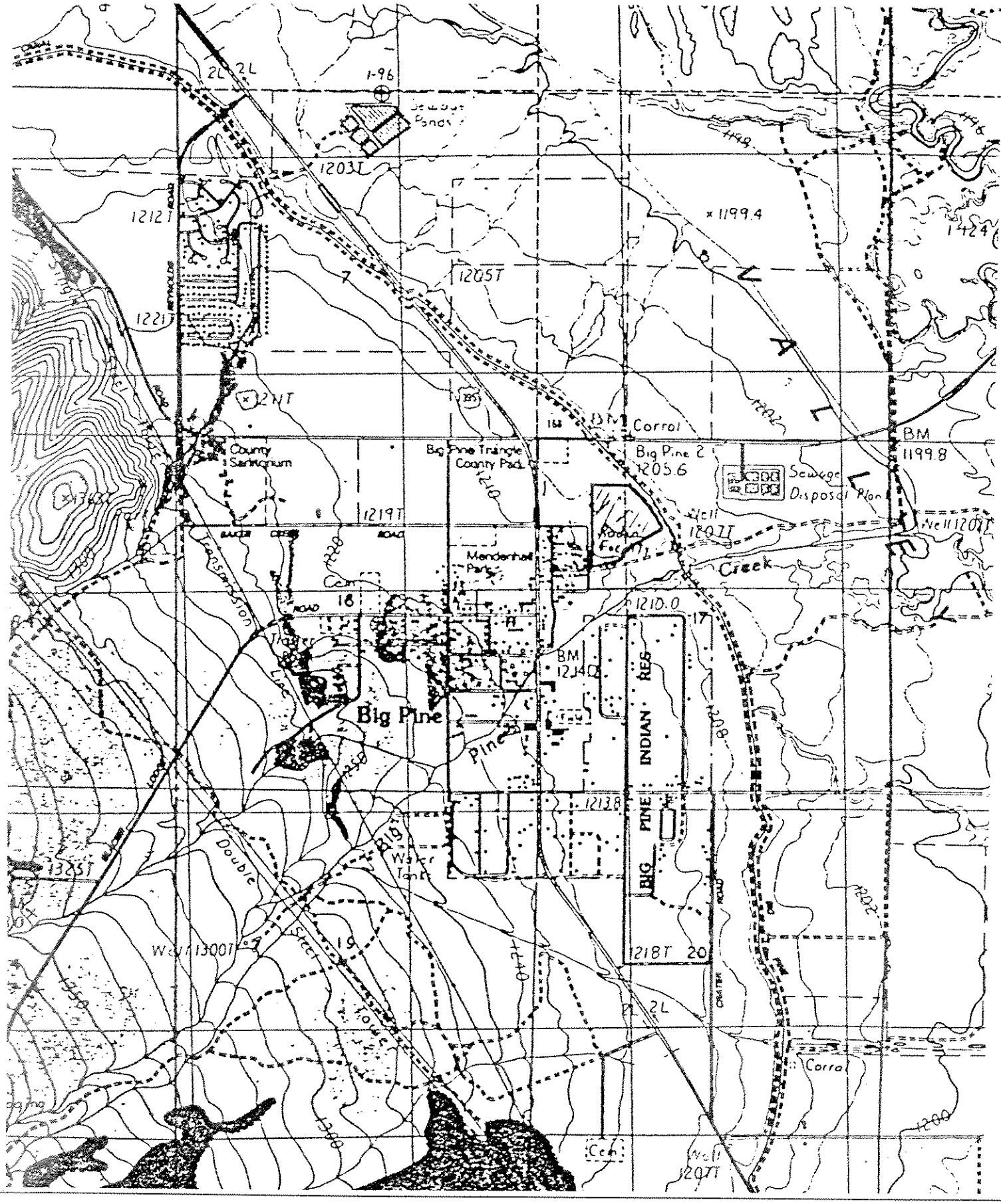
88041

APPENDIX E4

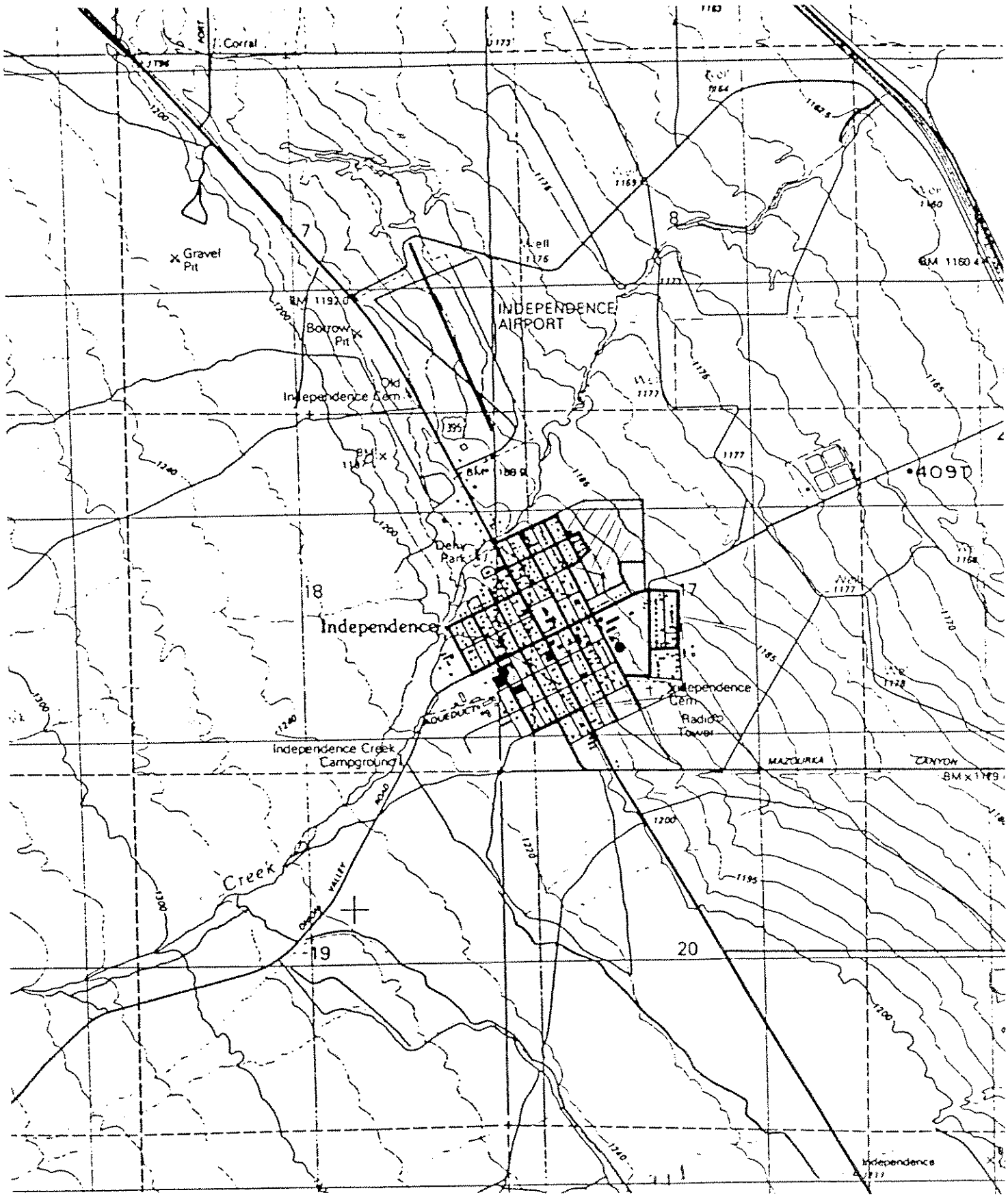
E/M PROJECTS IN OWENS VALLEY



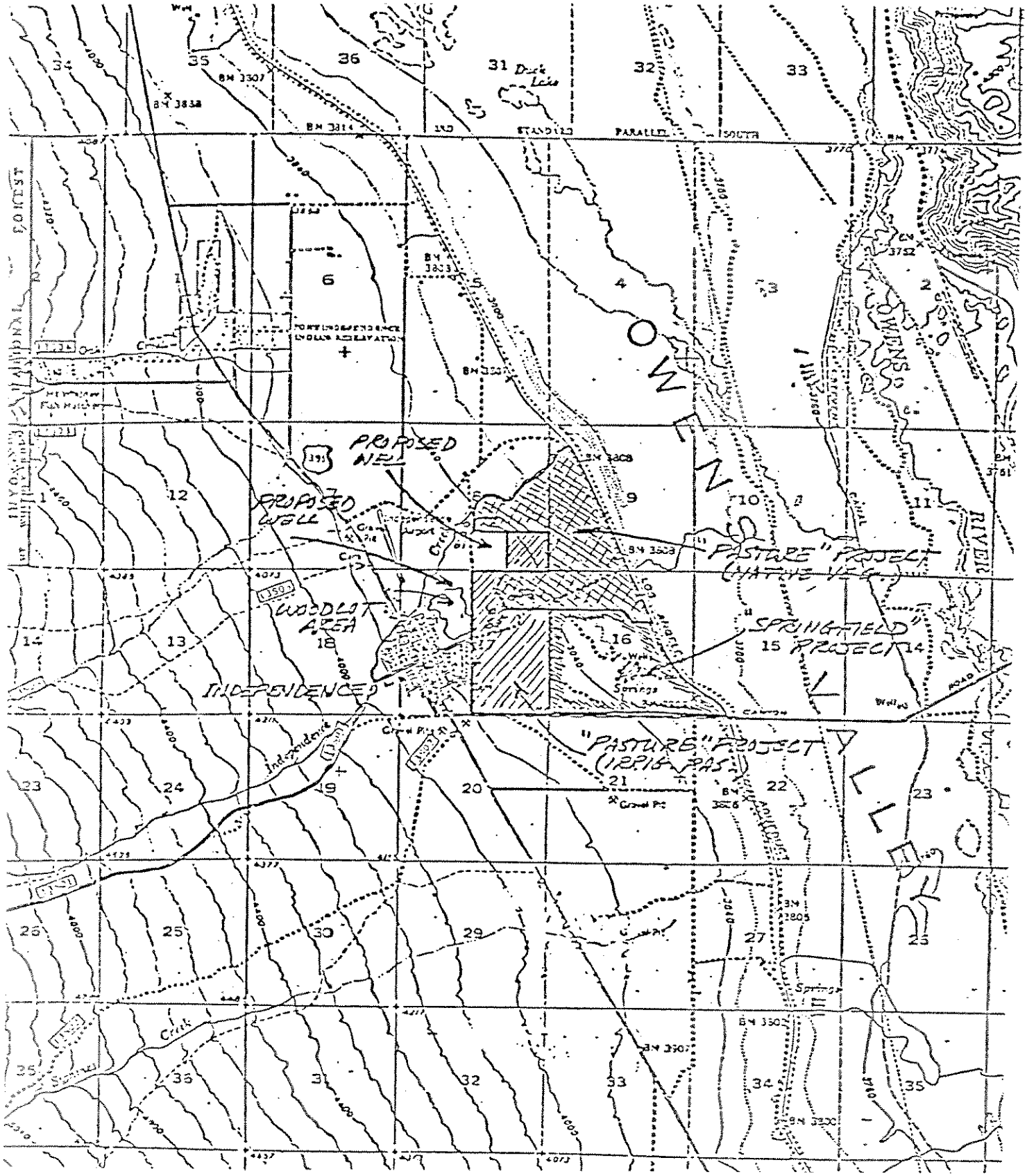
E/M PROJECTS
LAWS-POLETA PASTURE
MCNALLY PONDS PASTURE
MCNALLY PONDS
LAWS HISTORICAL MUSEUM



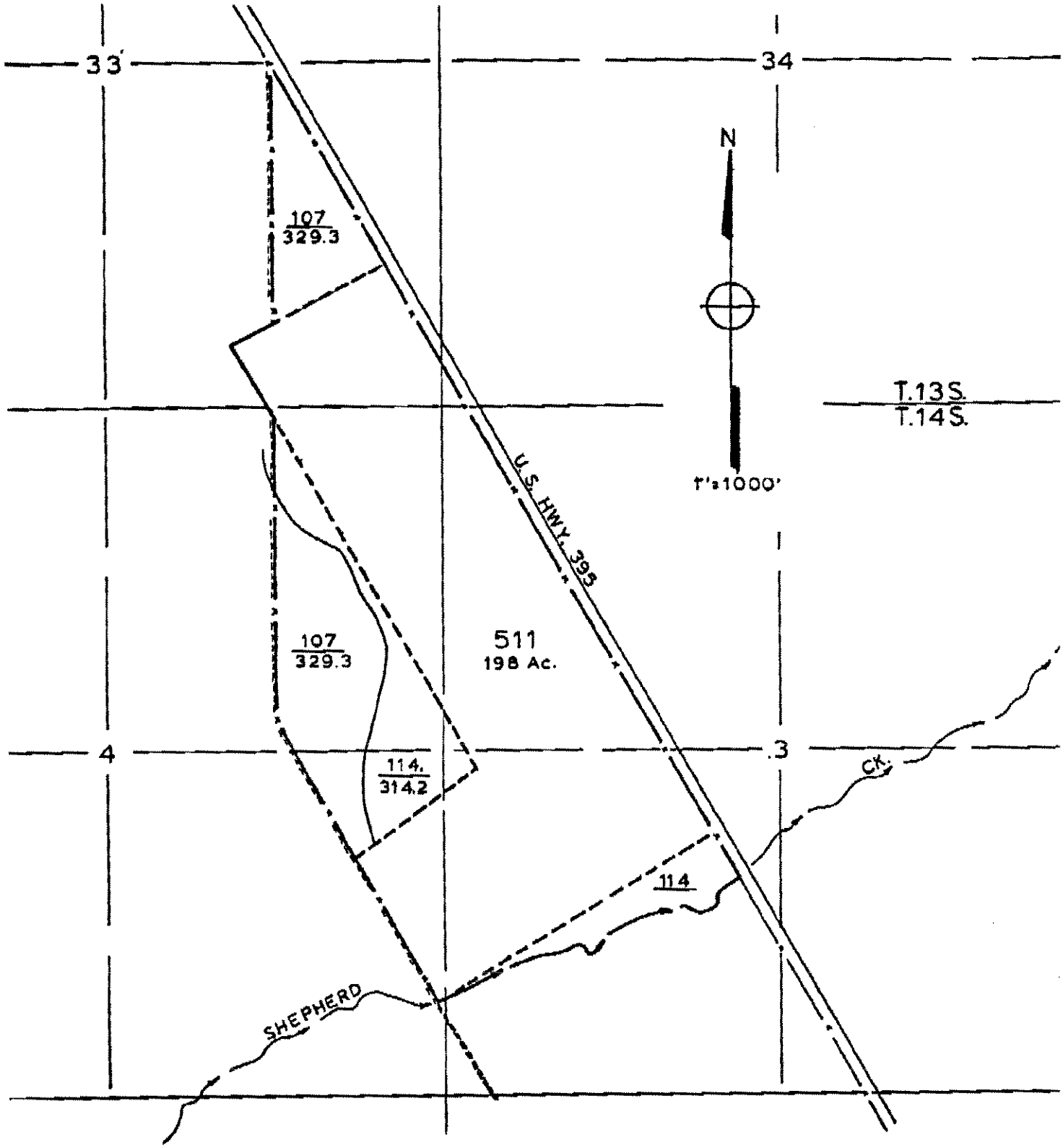
E/M PROJECTS
BIG PINE REGREENING AND DITCH



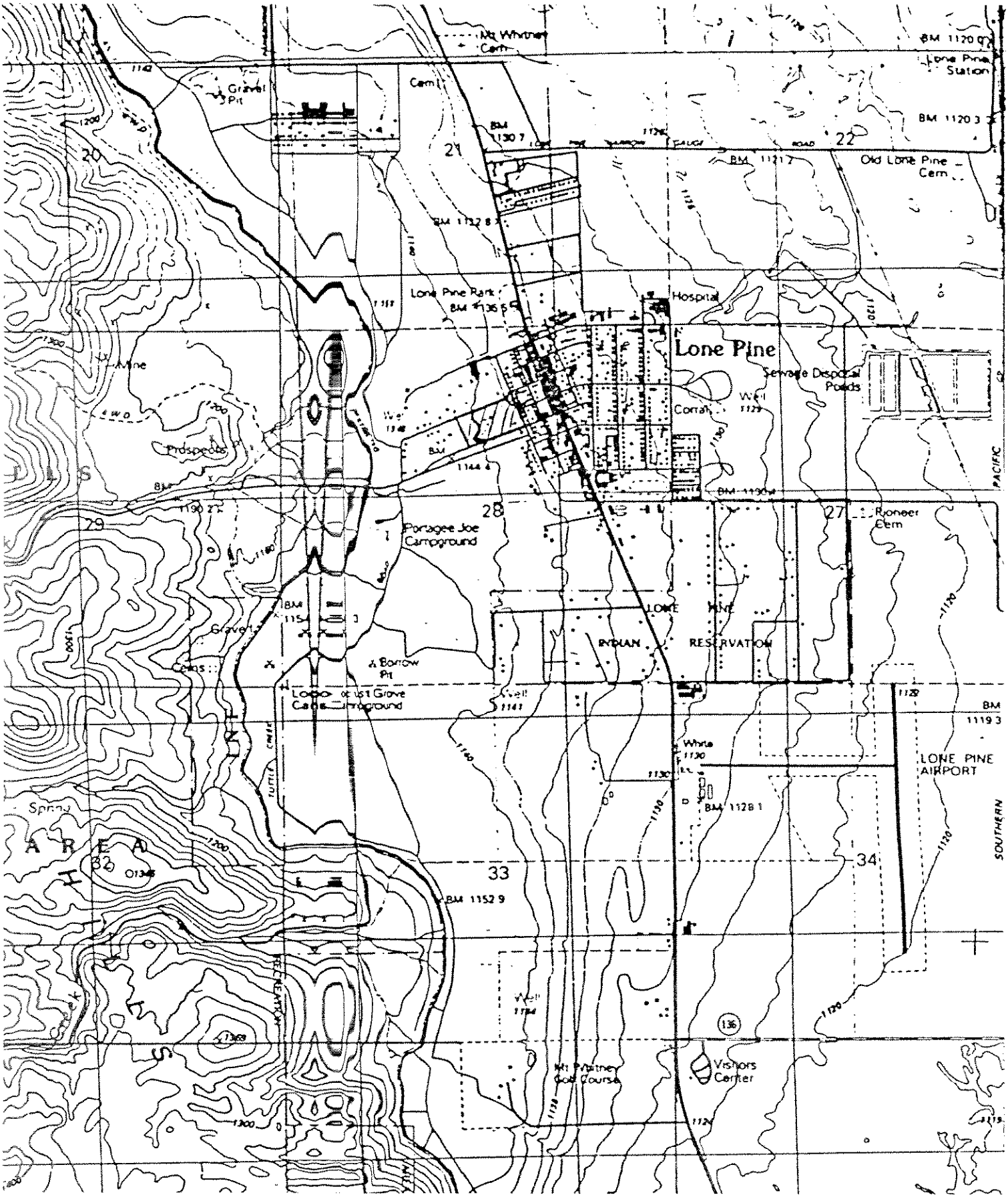
E/M PROJECT
INDEPENDENCE REGREENING



E/M PROJECTS
INDEPENDENCE, SPRINGFIELD AND WOODLOT
INDEPENDENCE PASTURE

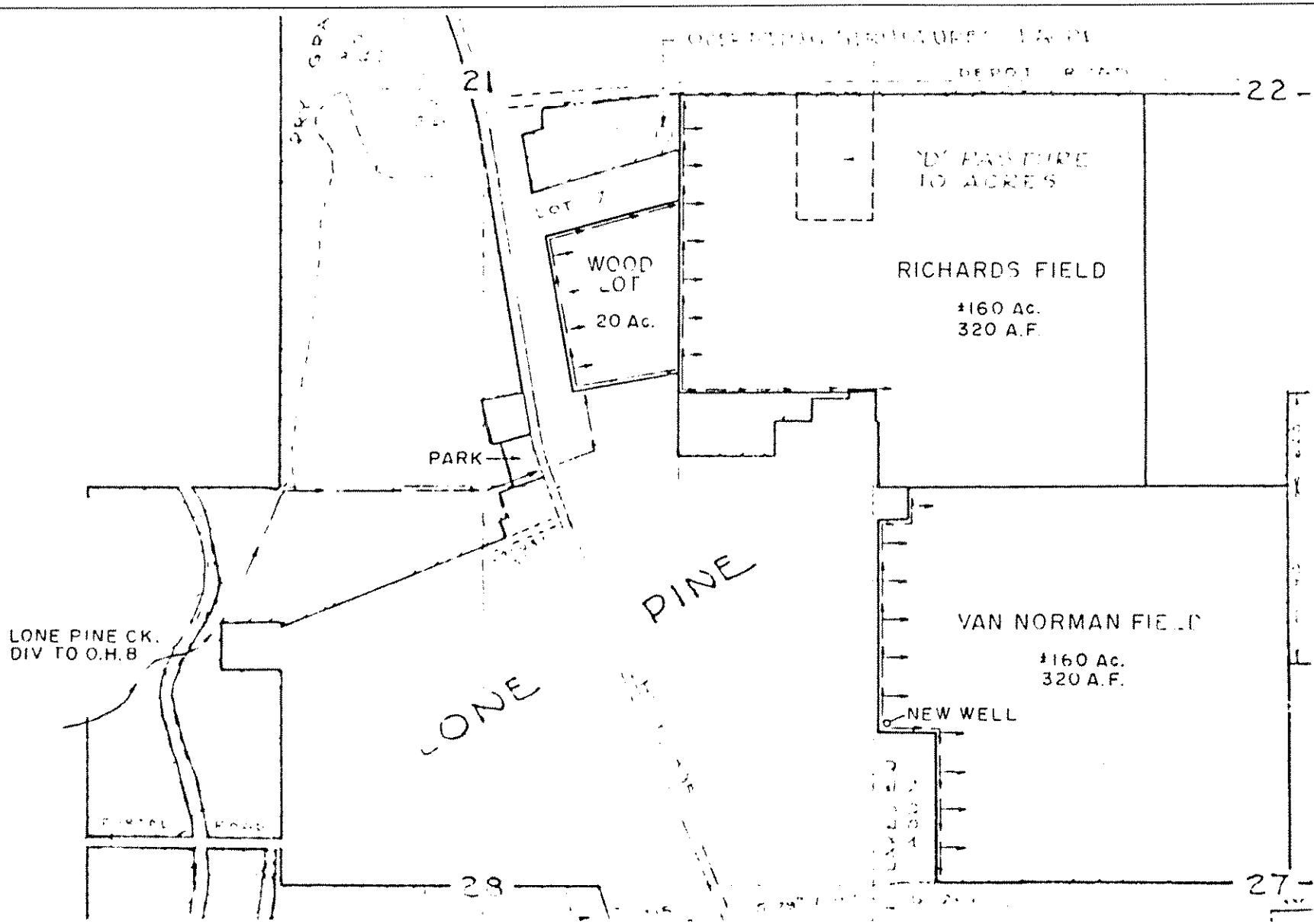


E/M PROJECTS
SHEPHERD CREEK ALFALFA FIELD



E/M PROJECTS
LONE PINE REGREENIM NG

E/M PROJECTS
RICHARD'S AND VAN NORMAN FIELDS



1"=1000'

oNEW WELL

F. THE GREEN BOOK
(BOUND SEPARATELY)